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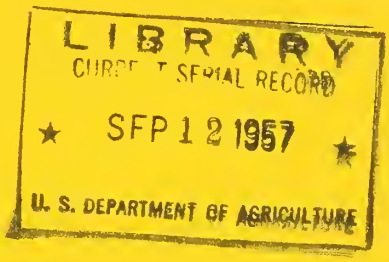
MARKETING SERVICE PROGRAMS



conducted by

STATE DEPARTMENTS OF AGRICULTURE

Under the Agricultural Marketing Act of 1946

in cooperation with

U. S. DEPARTMENT OF AGRICULTURE

October 1, 1955 — September 30, 1956

U. S. DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

Washington, D. C.

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MARKETING SERVICE PROGRAMS CONDUCTED BY STATE DEPARTMENTS OF AGRICULTURE UNDER THE AGRICULTURAL MARKETING ACT OF 1946

in cooperation with U. S. Department of Agriculture
(October 1, 1955-September 30, 1956)

INTRODUCTION

The matched-fund marketing service work being conducted by State departments of agriculture, under authority of the Agricultural Marketing Act of 1946, has these aims: To help marketing agencies at each level of distribution to put into use improved marketing practices as they are discovered or developed through research under the Act; to show marketing agencies how to maintain the quality of products as they move through distribution channels; to provide more timely, improved, and expanded market information services; and to increase the consumption of farm products. These activities under the Act were begun in 1947.

In 1955-56, programs were carried on in 38 States, Alaska, Hawaii, and Puerto Rico. The States are:

Alabama
Arkansas
California
Colorado
Florida
Georgia
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
New Jersey
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
South Dakota
Tennessee
Texas
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming

Cooperation in insuring maximum effectiveness of the programs is being provided by industry and trade groups, producers, State extension services and experiment stations, vocational educational agencies, various agencies of the U. S. Department of Agriculture, and other interested groups. In some States industry groups are helping to finance the work.

In conducting marketing service activities on a matched-fund basis, the States initiate and submit projects to the Agricultural Marketing Service for approval. Allotments are made to States for carrying on approved projects under cooperative agreements between the U. S. Department of Agriculture and State departments of agriculture, bureaus of markets, and similar State agencies. These projects fall into four major fields of work. During the period covered by this report, there were 122 active projects in these major fields:

1. Expanding market outlets.

   a. Finding markets for local seasonal surpluses.

      Producers are assisted in disposing of local seasonal surpluses by (1) providing shippers, brokers, truckers, and other potential buyers with up-to-date information on location, anticipated supplies, harvest dates, and peak marketing periods for the products concerned; and (2) conducting special promotional campaigns during the surplus periods.

   b. Increasing consumption of products chronically in abundant supply.

      Services designed to increase consumption on a long-time basis include: (1) Assistance to producers, shippers, wholesalers, and retailers in improving the effectiveness of their merchandising activities; (2) special surveys to determine trade opinion regarding improvements shippers should make in their grading, packing, and other marketing practices to improve consumer acceptability of their products; and (3) assistance in determining where additional selling devices--such as milk-vending machines--should be established for satisfactory results.

2. Maintaining product quality.

   In the quality maintenance work, such practices as improved grading, packing, storing, and other improved marketing operations are discussed with, and demonstrated to, the marketing agencies concerned, and firsthand assistance in the adoption and application of improved practices is provided at the farm, the local assembly plant, the processing plant, the storage facility, the wholesale market, the retail store, and in transit between these points. Some States have established label programs to provide an incentive for quality marketing.

Work in the quality maintenance field includes assistance in developing improved marketing methods as well as assistance through demonstrations and informational programs in applying existing techniques. For example, recent developments by State departments of agriculture and other agencies in objective methods of determining maturity of crops enable growers, packers, and processors to judge more accurately when harvesting should begin and to assist enforcement agencies in grades and standards work. Tests of the incidence of bruising and damage to fruits and vegetables, using various packing and loading techniques, indicate where improvements are needed in these operations.

3. Reducing costs through improving efficiency of marketing facilities and operations.

Under this project, marketing agencies are shown the methods and the kinds of handling and processing equipment best suited to their operations. Assistance is provided in improving existing facilities and in designing and locating new facilities, such as livestock auctions, poultry processing plants, grain elevators, milk plants, fruit and vegetable assembly markets, and food distribution centers.

4. Providing market information.

a. Helping growers and marketing agencies make marketing decisions.

Market news information from local markets is growing in importance with the trend toward decentralized packing and processing, the bypassing of terminal markets, and direct selling at country points. To meet this growing need, experimental market news coverage is being provided for local markets not now being reported. If successful, these programs may be supported with regular funds at the end of the experimental period. If not, they will be discontinued.

b. Developing information and basic data useful in planning marketing programs.

Information and basic data relating to trends in production, changes in consumer demand, the competitive situation in markets, storage holdings, and rate of disappearance are collected, analyzed, and disseminated by Federal-State statisticians in the various States. These data are of value to producers and marketing agencies in planning programs. Data designed to provide a more dependable basis for crop estimates are obtained through censuses of tree numbers and objective samplings of crops at various stages of growth.

This progress report, which has been prepared from material submitted by the States, presents: (1) Some examples of marketing service work by major commodities, (2) summaries of work by States and projects, and (3) a list of recent publications that have been issued in connection with the projects.

SOME EXAMPLES OF MARKETING SERVICE WORK BY MAJOR COMMODITIES

Dairy Products

Marketing services designed to maintain or improve dairy product quality were provided by Alaska, Colorado, Indiana, Kansas, Louisiana, Minnesota, Mississippi, Montana, North Dakota, Wisconsin, Vermont, and Wyoming.

Missouri and Vermont initiated projects in this field during the year. The bacteriologist employed by the Missouri Department of Agriculture to conduct the quality improvement program in that State is surveying dairy plants to determine the extent and character of the quality problem to lay the basis for a program. In Vermont, where off-flavors and off-odors present the most serious quality defects in milk, the program started is designed to deal with this particular problem.

Wisconsin was one of the earliest States to undertake quality improvement work on dairy products under a matched-fund project. Much progress has been made in that State, evidenced by the fact that the percentage of butter produced grading Wisconsin A or AA increased from 41 percent in 1951 to nearly 59 percent in 1955. There also has been in Wisconsin a substantial increase in the volume of milk meeting Grade A fluid milk standards. Both Wisconsin and Minnesota have featured intensive quality control programs as a phase of their overall quality improvement projects. Counties where the most serious quality problems exist are selected for this concentrated effort. Outstanding results have been achieved under these county programs. For example, in Sheboygan County, Wis., where a program of this type has been in effect since 1951, the percentage of No. 1 milk based on the sediment test increased from 18.8 per cent in 1951 to 30 percent in 1956.

The North Dakota quality improvement program emphasizes better sanitation and the installation of cooling facilities in handling farm-separated cream on the farm and at cream stations, and greater attention to the quality factor on the part of butter manufacturers. As a result of activities under the program, nearly all the cream stations in the State have installed facilities for cooling cream as it is received, and many have installed walk-in coolers for holding cream. The program is reported to have brought about a marked improvement in the quality of butter produced in that State.

Special promotional activities to stimulate consumption of milk and dairy products were carried out in Alaska, Illinois, Indiana, Kansas, Kentucky, Minnesota, North Carolina, and Wisconsin. Whenever possible, these activities were coordinated with the promotional program of the American Dairy Association. Wisconsin conducted by far the most extensive promotional campaigns for dairy products. For example, to promote cheese the Wisconsin Department of Agriculture staged marketwide campaigns in 6 cities and special campaigns in 15 other cities in 9 States. A total increase of about 1 million pounds in cheese sales was reported for the 21 cities during the week of the campaign, an increase of about 50 percent over normal sales. During the 4-week period

following the campaign, sales were 25 percent greater than normal for the period. Several States continued activities to assist dairy plants, in cooperation with vending machine companies, in expanding fluid milk sales through increased vending machine placements.

Market information releases containing dairy market data were issued periodically by Indiana, Louisiana, North Carolina, Minnesota, and Wisconsin. Wisconsin issued monthly about 6,500 copies of its dairy marketing newssheet, "Wisconsin Dairying," providing supply and demand data. One feature of this publication is the report on prices of milk going into the various outlets, both on an actual and equivalent 3.5-percent butterfat basis. Louisiana prepared and issued a monthly milk market report to about 5,500 producers and plant operators. This report contained information on such items as milk production, prices and volume of sales of milk by classes, and types of utilization by areas within the State.

Poultry and Eggs

Activities to assist egg producers and handlers in maintaining egg quality through informational and demonstrational assistance programs were carried on in Alabama, Alaska, Arkansas, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, North Carolina, Oklahoma, Tennessee, Texas, Virginia, West Virginia, Wisconsin, and Wyoming.

Georgia and Missouri initiated programs in the field during the year. Although the Georgia program has been in operation for less than a year, that State has held 45 egg candling and grading schools, at which approximately 1,500 persons were given firsthand instruction in the factors of egg quality and the procedures necessary at the different levels of distribution to maintain quality.

The Louisiana Department of Agriculture assisted in establishing two new outlets to handle the increasing commercial egg production of the State. The 6 egg-packing plants cooperating with the Louisiana department's program of buying eggs by grade increased their volume from about 2,100 cases weekly last year to more than 2,600 cases weekly during the current year.

The egg quality improvement program of the Virginia Department of Agriculture being carried on in the Shenandoah Valley area is showing positive results, as indicated by an increase between 1951 and 1956 of 18 percent in the pack of Grade A eggs by one large cooperating packer. Quality improvement in this area has proceeded to the point that a plan for marketing Grade AA eggs is considered feasible and is being planned by the Virginia department.

The West Virginia Department of Agriculture continued to provide assistance to producers marketing through the farmers' markets of the State in improving egg quality and expanding outlets. These producers are reported to have received several cents per dozen above prices for comparable grades at the nearest terminal markets.

In Oklahoma, 53 egg grading demonstration schools were held in 38 counties with 3,800 producers, packers, and retailers participating. Specialists assisted some 3,000 retail outlets in the State in improving the handling and display of eggs so as to maintain quality.

Programs to improve the quality of poultry were conducted by Louisiana, Maine, Michigan, North Carolina, Oklahoma, and West Virginia. In North Carolina, specialists assisted 35 poultry processors in adopting proper processing and packaging techniques to insure maintenance of quality in the finished product. Under the Oklahoma poultry quality improvement program, specialists assisted poultry plants in meeting the approved quality standards of the Oklahoma State Board of Agriculture. About 700 retailers in Oklahoma buy graded poultry originating in these plants. By demonstrations of proper refrigeration and display methods, these retailers were assisted in maintaining quality through to the consumer.

Maine sponsored schools for wholesalers, retailers, and restaurant operators in modern methods of buying, handling, cutting, packaging, displaying, and pricing the various types and cuts of poultry.

In cooperation with the Wisconsin Poultry Improvement Association and the Wisconsin Turkey Federation, the Wisconsin Department of Agriculture participated in 7 major promotional campaigns to expand consumption of poultry and eggs. These were: January Egg Month, Turkey for Easter, Chicken for Father's Day, Midsummer Turkey Time, Fall Poultry Festival, Turkey Locker Time, and Holiday Turkey Time. Promotional efforts also were conducted in such States as Indiana, Kansas, Illinois, Louisiana, Missouri, North Carolina, Oklahoma, and Virginia.

Technical assistance to poultry processors, egg handlers, and retailers in improving operating efficiency was provided by Illinois, Kentucky, Louisiana, Missouri, Montana, North Carolina, Virginia, West Virginia, and Wisconsin. Specialists of the Louisiana Department of Agriculture visited nearly 1,000 wholesale and retail establishments during the year to provide assistance in improving the physical handling of poultry and eggs. In connection with the establishment of a new poultry processing plant, these specialists assisted in plant design, selection and layout of equipment, and training of personnel.

Through technical assistance provided by Virginia Department of Agriculture specialists, one egg plant operator was able to increase output per grader from 16 to 21 cases per 8-hour day. This increase was accomplished through the adoption of an incentive wage plan which not only increased output per worker and thus indirectly reduced per-case overhead costs, but also effected a substantial reduction in direct labor costs per case handled.

Market news releases covering eggs, broilers, and turkeys were issued periodically in Alaska, Illinois, Kansas, Louisiana, Maine, New York, North Carolina, Oklahoma, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.

Fruits and Vegetables

Marketing service activities for fruits and vegetables were conducted last year by most of the States in the matched-fund program. There were 18 States and Territories which engaged in activities to expand outlets and increase consumption of these commodities; 21 States and Territories carried on grading, handling, and packing demonstrations, and other activities to improve and maintain quality; 11 States and Territories provided technical assistance in improving marketing facilities and equipment; and 18 States collected and disseminated new basic data and special market information on fruits and vegetables.

Illinois, Indiana, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Virginia, and West Virginia issued special information releases to shippers, truckers, and other buyers, covering location, anticipated supplies, and harvesting dates of locally produced fruits and vegetables. Indiana, for example, prepared and distributed weekly during the harvest season about 700 copies of a produce report giving information to buyers concerning the location, expected volume, period of harvest, varieties, and quality of locally grown fruits and vegetables. A companion report was issued weekly to relay to consumers information concerning best buys in both fresh and processed fruits and vegetables. This latter report was distributed through the Purdue University Information Service and was used extensively by Indiana newspapers, radio, and television stations in preparing copy and programs relating to food.

Missouri initiated a buyer informational program during the year for both fruits and vegetables. In cooperation with the Missouri Horticultural Society, the department prepared and distributed to potential buyers a booklet on the availability of apples. The department conducted a similar buyer service program on behalf of the melon-growing industry in southeastern Missouri.

During the fall of 1955, the West Virginia Department of Agriculture, in cooperation with the West Virginia Horticultural Society, established and operated a clearinghouse service to assist apple growers in finding fresh fruit outlets for about 750,000 bushels of apples which could not otherwise be moved except to processors at extremely low prices. Under this plan, truckers and other buyers of apples in the South were informed of the supply situation and encouraged to make purchases in the State. To assist buyers coming into the State in locating supplies, an information center was set up on a main highway leading into the apple area, and it provided buyers with current information on the names and locations of growers having apples for sale and the quantities, varieties, grades, and sizes available. About 375 truckers used this service in buying apples, some as many as 25 times during the season, and it is estimated that the program resulted in a net benefit of at least 40 cents a bushel to participating growers. This same type of service was extended to West Virginia peach growers during the 1956 peach marketing season.

The Maine Department of Agriculture, in cooperation with industry agencies, has developed a promotional program for washed and sized potatoes packed in polyethylene bags under a State trade-mark. Under this program, specialists of the department conduct demonstrations of this pack before wholesalers, chainstore buyers, retailers, food editors, and consumers in various consumer markets, and assist retailers in properly displaying and merchandising the product. This work was expanded during the year, and as a result of the success achieved in finding new outlets, 54 additional potato

shippers in Maine entered the program. About 300 of the State's 500 shippers are now cooperating in the program.

Demonstrations of proper methods of harvesting, grading, sizing, packing, and handling fruits and vegetables to improve market acceptance were conducted by Alaska, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, North Carolina, New York, Oklahoma, Puerto Rico, Texas, Virginia, West Virginia, and Wisconsin. In cooperation with the Extension Service, the Kentucky Department of Agriculture expanded its program of demonstrating to strawberry growers the methods of picking, grading, and packing necessary to maximize the percentage of U. S. No. 1 grade berries. Specialists gave firsthand instructions regarding these methods to about 2,000 growers during the season. As a result of the program, it is estimated that the volume of U. S. No. 1 berries in the Kentucky pack was increased by about 25 percent and meant an additional income of about $125,000 to growers.

As one of its activities in improving the marketing of vegetables, the Illinois Department of Agriculture provided assistance to a group of tomato growers in adopting proper methods of grading and packing to obtain premium prices for their "staked" tomato production. The uniformly sized and color-sorted tomatoes packed by this group met with active dealer acceptance in the Chicago market. These growers realized an average net price of about $1.70 and $0.95 per 10-pound basket for their No. 1 and unclassified grades, respectively. Other growers selling at the Anne, Ill., market received a return of only about $0.65 per 10-pound basket.

Maryland initiated a program during the year to provide technical assistance to its fruit and vegetable processors in improving product quality. A program of this type has been in operation in Indiana for several years.

At the request of the prune industry, California conducted in 10 major cities a survey of retailer merchandising practices for dried prunes. The results of the survey have been made available to the Prune Advisory Board to provide a basis for improvement in its merchandising aid program with retail grocers. Similar information relative to practices of retail stores in displaying and merchandising strawberries was obtained by the California Department of Agriculture and furnished the strawberry industry for its use in developing promotional plans for 1957.

The Kentucky Department of Agriculture, in cooperation with the Agricultural Marketing Service, U. S. Department of Agriculture, assisted the Cumberland Strawberry Growers' Association in developing new marketing facilities at its Somerset receiving point. This new facility permitted more efficient handling of the nearly 75,000 crates of fresh market berries and the 1,300,000 pounds of processing berries which moved through this point in 1956.

Virginia provided the assistance of specialists to 7 apple packinghouses in improving the efficiency of packing operations. One packer was able to

save $25 a day on labor expenses by adopting one of the changes in equipment layout recommended by the specialists. In Virginia, specialists also assisted in the development of plans for a new produce terminal at Roanoke.

In Puerto Rico, the field work was completed on a survey to determine the need for new and improved facilities at the assembly and wholesale market levels. A report, including recommendations, is to be prepared next year.

The California Department of Agriculture continued its work to develop reliable objective sampling methods with which to improve production forecasts for peaches and pears. It also initiated during the year a project of this type for grapes.

Acreage surveys were initiated or completed during the year in North Carolina, Michigan, and Virginia (apples and peaches); New Jersey, Massachusetts, and Washington (cranberries); and California (all fruits and tree nuts). The citrus tree survey initiated in Florida in 1954 was about three-fourths completed at the end of the past fiscal year.

Such States as Florida, Massachusetts, Michigan, New York, and North Carolina are providing growers and shippers with special reports on acreage and production of various fruits and vegetables. Florida, for example, has started a series of reports on weekly plantings of tomatoes. Michigan provided apple growers and shippers with a special August 1 report on production of apples by varieties.

Nursery Stock

California, Michigan, and Minnesota continued programs to improve the acceptance and marketability of nursery stock through development of procedures for virus-free certification of trees and vines. Almonds, apricots, cherries, grapes, nectarines, peaches, plums, prunes, and strawberries are the commodities now included in these programs.

In Minnesota, 3 new budwood mother blocks of virus-free winter hardy stone fruits were added to the project, making a total of 10 such blocks located in 6 of the largest nurseries in the State. Plans are being developed to initiate a certification program for Prunus nursery stock from these cooperating nurseries. Under the California project, the greatest progress toward development of a certification program has been made with respect to cherries and grapes. Regulations pertaining to the registration of virus-free cherry trees and grapevines became effective in September 1956. Development of regulations for certification of this nursery stock is under way, and the regulations are expected to be adopted by the time progeny stock from the registered stock in participating nurseries becomes available. The certification programs developed in these States are to be financed by fees.

Livestock

During the year, 26 State departments of agriculture carried on marketing service activities pertaining to livestock.

Programs to encourage and assist in improving methods and practices of marketing livestock were conducted in North Carolina, Indiana, West Virginia, Wisconsin, Maryland, Virginia, Tennessee, Kentucky, Missouri, Oregon, and Alaska.

In West Virginia, North Carolina, Tennessee, Maryland, Kentucky, Indiana, and Virginia, marketing specialists provided assistance in organizing and conducting a series of feeder calf and cattle sales. These sales were publicized over a wide area by radio, television, and newspaper announcements and the distribution of handbills to attract buyers within the State as well as buyers in nearby States. Prior to the sales, specialists sorted the animals into uniform lots by age, sex, weight, and grade. These sales and demonstrations gave producers an opportunity to become acquainted with official grading methods and requirements and to observe the advantages of selling livestock on a graded basis. It is estimated that the grading demonstrations and the assistance provided in organizing and conducting special livestock sales resulted in several thousands of dollars of additional income to livestock producers in each State. For example, the program in West Virginia was instrumental in marketing over 20,000 head of cattle at price premiums of $8 per head more than prices of similar grades of cattle at regular sales. In Virginia, 15,000 yearling feeder cattle were sold at 20 special sales, at which returns to producers were $7 to $10 per head more than prices received at regular auction sales.

Demonstrations of official live hog and carcass grades were conducted in Virginia, Maryland, North Carolina, Tennessee, and Indiana in connection with the program to encourage the buying and selling of hogs by grades and to stimulate the marketing of meat-type hogs. In both Tennessee and Virginia, the program had been instrumental in getting packers to initiate hog buying on a graded basis.

Specialists in North Carolina, Virginia, West Virginia, and Maryland provided assistance in organizing lamb pools and special sales, and assisted in grouping and grading lambs at the sales. In North Carolina, 13,000 lambs were sold through 21 organized lamb pools, and it was reported that the choice lambs brought $26.40 per hundredweight, which was 2 to 4 cents more per pound than producers received for lambs sold in small lots at auctions in a nearby State. Specialists of the Virginia Department of Agriculture provided assistance in organizing and conducting stocker ewe sales at various points in the State. These sales facilitated the assembly of small lots of ewes into larger lots of uniform age and quality, a service which benefitted both the sellers and buyers.

In North Carolina, Kentucky, Virginia, and Missouri, producers were assisted in improving the quality of the foundation stock of beef cattle and other livestock. North Carolina, for example, held a series of purebred cattle and hog sales to assist producers in obtaining high-quality replacement stock. Producers in that State also were assisted in the procurement of purebred rams and in obtaining replacement stock of quality ewes.

Oregon initiated a pilot meat inspection program to determine the necessity for, and costs of, a compulsory State meat inspection program for plants not under Federal inspection.

Assistance was provided in expanding outlets for livestock and meats in Missouri, Wisconsin, Indiana, Kansas, Maryland, North Carolina, Virginia, and West Virginia. For example, the Missouri Department of Agriculture prepared and disseminated a series of livestock brochures, in cooperation with breed associations, to promote the marketing of high-quality breeding stock for cattle, hogs, and sheep. The pork promotional campaign in Wisconsin represented a coordinated effort by the department of agriculture and such agencies as the National Livestock and Meat Board, American Meat Institute, Wisconsin Farm Bureau, Wisconsin College of Agriculture, and Wisconsin Swine Breeders' Association. The object of the program was to assist in moving plentiful supplies of pork through trade channels by coordinated Statewide effort that also tied in with the national pork promotional program. During the campaign about 90 percent of Wisconsin retail outlets were furnished point-of-sale material, 60,000 table tents were distributed to restaurants through the Wisconsin Restaurant Association, about 9,000 pork recipes prepared by the State nutritionists were mailed out upon request, and 8 television shows were conducted by State specialists to demonstrate methods of preparing pork and to point out its food value.

Other meat promotional programs included the "Ham for Easter" and "Beef for Father's Day" campaigns conducted by the Kansas State Board of Agriculture in cooperation with the Kansas Livestock Association and other agencies to encourage greater meat consumption.

In Indiana, the Farmer-Retailer Committee, composed of representatives of producer organizations, marketing agencies, and Purdue University, conducted a pork promotional campaign with the result that pork sales were increased substantially. For example, one large chain reported a 68-percent increase in pork sales in its Indiana stores during the period October 13-31, 1955.

Kentucky and Maryland conducted livestock conservation programs through demonstrations, exhibits, and informational media. The Maryland program dealt with the economic losses from bruised, crippled, and dead livestock, and the proper equipment and handling methods to prevent such losses. Scale models of loading ramps, sorting pens, and other handling equipment were used in the demonstrations.

During the year, Kentucky specialists visited all the important livestock auctions and evaluated their operations. These contacts resulted in the adoption of many suggested changes that improved the operation of livestock auction facilities and marketing methods. In addition, Kentucky specialists arranged for the showing of conservation films throughout the State, made appearances on radio and television programs, and prepared illustrated articles on livestock conservation and livestock marketing. Technical assistance was provided in planning and designing two large stockyards to replace facilities that had been destroyed by fire. Specialists also introduced a

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new visual device as a means of speeding up auction sales as well as providing more complete information on each ring sale. Five auctions are now using this method.

New basic data and improved marketing information relating to livestock were provided by Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, New York, North Carolina, North Dakota, Ohio, South Carolina, South Dakota, Washington, Wisconsin, Wyoming, Virginia, Indiana, West Virginia, and Texas. Information on livestock prices and available supplies was released periodically in most of these States. These reports provided new, detailed, and local-area information which assisted producers and marketing agencies in making marketing decisions. The quarterly sow farrowing reporting program was again continued, with Iowa, Illinois, Minnesota, Wisconsin, Indiana, Ohio, Missouri, Kansas, and South Dakota participating. These States exchanged information through their Federal-State statisticians which furnished the basis for a regional report.

Work was initiated in Indiana on an experimental price reporting program covering 61 local markets which handle between 3 and 4 million hogs a year. Price information on various grades of hogs was assembled from these points and disseminated daily by radio, press, and mailed bulletins. This program provides price information on more than 50 percent of the hogs marketed in Indiana which bypass the terminal markets, and enables producers to know the prevailing prices for various grades of hogs at local market points in the State.

The Ohio Department of Agriculture also initiated an experimental market news program that reports receipts and prices paid for the various grades of hogs at 60 local marketing points in central Ohio. This information was disseminated at 8:15 a.m., 10:15 a.m., and 11:15 a.m. on 3 Columbus radio stations having Statewide coverage, and also was furnished to the Associated Press and United Press.

Grain

Marketing service activities for grain were conducted during the year by 17 State departments of agriculture. Seven States engaged in activities to demonstrate and encourage the use of official grain grades, 17 collected and disseminated new basic data and special market information, and 5 provided assistance in improving marketing facilities and equipment.

Marketing services designed to familiarize farmers and dealers with grain grades and to encourage the use of grades as a basis for buying and selling grain were provided by State departments of agriculture in Georgia, Kansas, Maryland, North Carolina, North Dakota, South Dakota, and Virginia. In Virginia, marketing specialists provided demonstrations for producers at the point of sale on quality factors affecting grain grades. Official grades were adopted as the basis for establishing premiums and discounts in the buying and selling of grain, to replace the practice of taking hidden discounts in weight deductions. For example, it is estimated that since the initiation of

the Virginia program, these improvements in marketing practices have resulted in an addition to farm income from soybeans of more than a million dollars.

In Maryland, the program of encouraging the buying and selling of grain on an official grade basis was continued, with the principal emphasis on corn, wheat, and soybeans. The Maryland soybean grade program has developed to the point where practically all dealers are buying soybeans on a grade basis. North Carolina marketing specialists conducted several demonstrational meetings on official grading procedures and requirements for grain, and a 5-day grading course for grain handlers was held in cooperation with the Extension Service. This program has been primarily responsible for an increase in the buying and selling of grain on a grade basis. During the year, 13,000,000 bushels of grain were sold in North Carolina on a grade basis at prices which added thousands of dollars to producers' returns. North Dakota specialists provided demonstrational assistance in 13 counties on methods of preventing deterioration and contamination of grain in storage. In connection with the countywide control programs, more than 38,000 pounds of rat and mouse bait was distributed for use in baiting 33 towns, 35 city dumps, and 45 grain elevators. This program is important to producers, as grain so contaminated as to be subject to seizure is likely to be sold only for feed uses at a substantial discount from the prices received for grain marketed for food uses.

Special market information was collected, analyzed, and prepared for release by marketing specialists to producers, handlers, dealers, and others in Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Mississippi, Montana, North Carolina, Ohio, Oklahoma, South Dakota, Texas, Virginia, and Washington. These releases contained the following types of information: Trends in acreage; production; quantities in storage and rate of disappearance; the competitive price situation in markets; cost data for handling, drying, and storage; and changes in demand. These data are particularly useful in developing long-term marketing programs.

In Indiana, special marketing information was provided on best times to sell, market outlets, grain storage costs, and other information on the marketing situation, to assist farmers in making decisions in the marketing of corn, soybeans, wheat, and other grain crops. Several radio programs, articles on marketing, and grain marketing meetings were included in the program to inform Indiana farmers of the current and prospective marketing situation for food grains, feed grains, and oilseed crops produced in the State. It was reported that grain producers who used this information received an estimated additional return of about 10 cents a bushel. In 1955-56, Indiana grain crops amounted to over 350 million bushels valued at over $500 million.

Basic data were provided in Kansas on the amount of on- and off-the-farm storage for the 1956 wheat crop. This information was used by farmers, grain handlers, railroads, and other transportation agencies in making provision for storage and transportation to handle efficiently the grain produced in these States.

The Ohio Department of Agriculture initiated an experimental news program to develop a daily reporting system for cash grain prices paid by local elevators in central and southwestern Ohio.

Ten Southeastern States cooperated in obtaining information on freight rates for grain. This information was used in making a joint complaint to the Interstate Commerce Commission on proposed freight rate increases which would affect grain moving by rail to and within the Southeastern States.

Technical assistance in building, installing, and operating improved processing and storage facilities was provided in Indiana, Georgia, Maryland, North Carolina, and Virginia.

In North Carolina, technical assistance was provided 12 grain operators in planning new grain handling and storage facilities, with the result that modern storage capacity of 689,996 bushels was added during the year. Similar assistance provided in Maryland has brought about the expansion of storage facilities which were able to handle all Maryland wheat offered for storage. Since the initiation of the Virginia technical assistance program for grain, commercial grain storage with a capacity of over 1½ million bushels has been constructed. Marketing specialists in Indiana contacted 61 grain elevators and feed mills to show managers how to improve the operation of facilities.

Georgia initiated a program to assist corn millers in planning mill layout and in improving the operation of mill equipment.

Tobacco

North Carolina and West Virginia continued programs providing technical assistance to tobacco farmers in sorting, grading, and otherwise preparing tobacco for market and in displaying the product on the sales floor. With the introduction of new varieties and changes in buyers' requirements for types of cigarette tobacco, the need has increased for assistance of this kind. Tobacco that has not been properly sorted into uniform lots with respect to group, quality, and color brings a lower price than properly sorted lots. It is important, therefore, that growers be trained in the proper methods so that they can sort their tobacco into the grades that will maximize sales returns. In conducting this program, specialists of the North Carolina Department of Agriculture held 96 demonstrational meetings, attended by about 2,200 producers, in 23 flue-cured and 8 burley tobacco counties. During the past season, the Wisconsin Department of Agriculture provided growers and marketing agencies with daily price information and quarterly reports on volume of sales covering the two types of tobacco produced in the State. North Carolina again issued the "North Carolina Tobacco Report," which provided growers and marketing agencies with information on the 1956 outlook; a detailed analysis of 1955 crop flue-cured and burley sales by markets; and breakdown by counties of the 1955 acreage, yield, and production.

Cotton

Marketing service programs designed to improve ginning and other cotton marketing operations were continued in Louisiana, North Carolina, and Virginia. In the latter two States, specialists collected cotton samples weekly from representative gins; conducted tests of fiber length, strength, fineness, uniformity, and maturity; and released the results every two weeks to cotton mills and merchants. This service helped buyers in locating cotton of the desired physical properties and improved the overall demand for cotton produced in the two States. North Carolina specialists also worked with a number of cotton mills to assist them in improving the blends of raw cotton used in the spinning process. Through these contacts with mills, specialists were able to advise ginners of mill requirements with respect to machining, cleaning, and conditioning of cotton.

In both Louisiana and North Carolina, the programs of assisting ginners in improving facilities and ginning operations were continued. Louisiana specialists, for example, assisted about 370 gins in installing and adjusting gin machinery to improve the efficiency of operations and reduce gin-damaged cotton to a minimum. The percentage of gin-damaged, or "rough prep," cotton has been greatly reduced since this program began about 5 years ago.

SUMMARIES OF MARKETING SERVICE WORK BY STATES AND BY PROJECTS

ALABAMA

Improving and maintaining quality (seed)--(RM:c-3550-35)

In Alabama and other States in the Southeast, there is a growing demand for high-quality seed of various crops--that is, seed of high purity and germination and with a low weed content. Climatic factors and present seed production practices in Alabama result in considerable weed seed contamination and high moisture content which, unless remedied, is conducive to low viability. Under these conditions, much of the responsibility for improvement in seed quality rests on the processor. Activities under this project are designed to assist farmers and seed processors in adopting modern technological methods of cleaning and processing seed so that the higher level of quality necessary to meet this demand can be achieved.

To stimulate interest in better seed processing and to determine what particular processing operations need improvement, seed specialists conducted a plant-by-plant examination of equipment, facilities, and methods. After evaluating the operations of each plant, the specialists advised the operator of their findings and made recommendations for improvements. Then they assisted operators in carrying out the recommendations. About 500 such visits to plants were made by specialists during the year.

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One of the problems confronting seed processors in improving seed quality is the lack of proper seed cleaning machinery. As one phase of the Alabama seed program, specialists contacted manufacturers of such machinery, explained the need for more effective machinery, and consulted with them on design problems. In order to implement this phase of the program, the Alabama department sponsored a meeting during the year of all peanut seed processors, seed analysts, and peanut machinery manufacturers in Alabama, Georgia, and Florida. This meeting was devoted to a discussion of proper peanut processing procedures and equipment and their relationship to the attainment of high seed quality.

The program has resulted in a noticeable improvement in cottonseed processing. At the suggestion of specialists, many processors have installed the slurry type of treater which facilitates the application of poison to the seed. Specialists also have been successful in getting a number of processing plants to install treaters for small-grain seed. Activities under the program also have stimulated peanut seed processors to improve their operations. For example, they are placing more emphasis on proper storage of bulk peanuts. In accordance with the recommendations of specialists, these processors are storing seed peanuts in smaller lots and increasing the frequency of testing to determine condition. Also on the basis of the specialists' recommendation, several processors have adopted a system of paying a premium for seed peanuts that have been properly combined. This has had the effect of stimulating good combining practices.

To improve the effectiveness of the program, specialists are developing visual aids with which to demonstrate the proper design and layout of plant equipment, efficient processing methods, and the various factors of seed quality.

Improving quality and expanding market outlets (poultry and eggs)--(RM:c-2550-62)

Egg marketing in Alabama has presented a serious problem in the past because of low quality and the fact that few eggs offered for sale were graded and sized in accordance with recognized standards. In April 1955, the Alabama Egg Law was made effective as the initial step toward solution of the problem. This law requires that eggs sold in the State be graded and sized in accordance with prescribed standards, and that the containers in which they are sold be so marked and identified.

After enactment of the law, the Alabama Department of Agriculture developed a marketing service program designed to implement the law through assistance to producers, wholesalers, and retailers in improving egg handling and grading methods. Assistance was provided mainly through actual demonstrations of proper candling and grading procedures at meetings, fairs, and other events, and at egg grading schools. During the year representatives of all wholesale egg dealers in the State participated in these demonstrations

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or schools. Specialists also explained the requirements of the egg law to retailers over the State and gave them instruction in proper methods of refrigerating and displaying eggs. In conducting its program, the department cooperated closely with the Alabama Extension Service, Alabama Vocational Education Department, and Poultry Department of Alabama Polytechnic Institute.

The program has had the results to date of (1) improving the level of Alabama egg prices, (2) stimulating a large egg distributing company to purchase locally produced eggs for the first time, (3) establishing a sound basis for the expansion of market outlets by increasing the availability of quality eggs, and (4) acquainting consumers with the quality factors to look for in the purchase of eggs.

ALASKA

Improving quality and handling methods, expanding outlets, and furnishing market information--(RM:c-2550-51)

Eggs. During the year, special emphasis was placed on improving egg marketing at the producer, wholesaler, and retailer level. Approximately 60 wholesalers and retailers were assisted in improving storage and handling methods. As a result of the work, several retailers provided refrigerated storage for their eggs so that proper temperatures could be maintained and contamination from strong-flavored foods could be avoided. Specialists made spot checks from time to time of the quality of eggs being sold and, in instances where off-quality was detected, made recommendations to the shipper for changes in his grading and handling methods. This type of service also was provided to a shipper in the State. With a view to encouraging the marketing of cleaner eggs and reducing handling costs, the Alaskan department arranged for and demonstrated at the Matanuska Valley Fair a modern egg cleaning, candling, and sizing machine. This exhibit was utilized also as a means of interesting consumers in the egg quality improvement program. About 7,000 people visited the demonstration.

Potatoes. The department continued its program of assisting the potato industry in improving the marketing of the crop. New growers were advised with respect to proper methods of harvesting, grading, and packaging. Arrangements were made with the Quartermaster's Office to accept potato shipments in paper bags, a change in packaging that reduced costs and mechanical injury.

Livestock. Assistance was continued to beef slaughterers on Kodiak and Chirikoff Islands in their effort to develop a successful marketing program for their product. Test shipments were made to the Navy and retail stores in Anchorage to determine if the quality of beef produced on the native forage was acceptable to consumers. The results of these tests indicate that some grain finishing will be required to improve the quality if a large-scale beef industry on these islands is to succeed.

ARKANSAS

Improving quality (eggs)--(RM:c-3550-10)

Arkansas continued its program of informing producers and egg handlers, through group meetings and the distribution of printed material, of the grading and labeling requirements of the Arkansas Egg Law. In addition to the meetings, at which proper methods of candling, grading, and sizing eggs were demonstrated, egg grading schools were conducted for egg handlers and their employees who desired to attain proficiency in these methods. The program has resulted in an increased volume of graded eggs being sold at retail in the State. One chainstore organization has discontinued handling ungraded eggs.

The Arkansas State Board of Agriculture and the Extension Service have cooperated in promoting the use by producers of mechanical refrigeration for eggs until delivery to market. The fact that many producers have installed such equipment during the year has been reflected in improved egg quality.

A regional egg marketing meeting was held at Hot Springs, Ark., June 11-12, with the following States represented: Oklahoma, Missouri, New Mexico, Kansas, Louisiana, Mississippi, Texas, and Arkansas. The principal subjects discussed at this meeting were the administration and operation of recently enacted State egg laws, the development of effective marketing practices, and the elimination of interstate trade barriers.

CALIFORNIA

Expanding markets--(RM:c-2550-10)

Under this project, the California Department of Agriculture conducts marketing surveys to provide the various commodity groups operating under State marketing orders with basic information needed to improve quality, packaging, and methods of sales promotion, and to expand markets and increase product utilization. Since this program was initiated in 1948, surveys of this type have been made covering 14 commodities: Apples, asparagus, lima beans, dried figs, prunes, raisins, dates, ripe olives, turkeys, lemon products, honey, bush berries, Irish potatoes, and strawberries. The surveys have been instrumental in uncovering new uses and new opportunities for distribution; in detecting trends in demand; in discovering new ideas about packaging, merchandising, and promotion; and in detecting weak spots in the distribution system responsible for inefficiencies.

Two new surveys were begun during the year, one of which covered dried prunes and the other long white potatoes. Information obtained in previous surveys, applicable to the marketing of strawberries, was summarized and furnished in a report to the Strawberry Advisory Board. Results of the processed asparagus marketing survey conducted in 1955 were published during the year and disseminated to asparagus producers and processors, members of the food trade, and various governmental and private agencies.

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Dried prunes. The dried prune survey was undertaken at the request of the California Prune Advisory Board, which represents all segments of the prune industry in California. Preliminary to the survey, exploratory meetings were held with groups and individuals within the industry to discuss plans and objectives. In the survey, 340 retail food store operators and 110 brokers, wholesalers, and chainstore representatives were interviewed in 10 important markets. The findings indicated that the optimum display location for dried prunes was governed to a considerable extent by store layout, local food preferences, and shopping habits. The survey indicated that the following points should be considered in developing a retailer merchandising program for the commodity: (1) Prunes should be regarded as an impulse purchase item; (2) the display should be located at an early stage of the customer traffic flow through the store; (3) in selecting the display location, dead spots and ambiguous product relations should be avoided; (4) the assortment of packages and fruit sizes that the store should carry should be determined by the process of customer selection; and (5) packages should be arranged in such a manner in the display that only their broadest surfaces face the customer.

Potatoes. The trade survey requested by the Long White Potato Advisory Board was carried out during May and June 1956 among wholesalers, retailers, and commercial users in California markets and in 14 important out-of-State markets. Information of immediate importance to the industry, such as the arrival condition of shipments and trade response to the Board's promotional program, was furnished the Board during the survey. A progress report on the findings is being prepared for presentation to the Board and its advertising agency. A final report will be printed and disseminated to all potato growers and handlers.

Strawberries. Although the California Department of Agriculture was not able to undertake a full-scale market survey for the strawberry industry as requested, it did prepare several reports for the Strawberry Advisory Board and its advertising agency. These reports were based on information obtained in other commodity surveys, such as the 1955 bush berry survey and the 1956 potato survey. Observations of retailing practices indicate that in a considerable percentage of retail outlets, both large and small, the turnover is not as rapid as is required by the perishability of the product. This lag results in loss of quality and tends toward a progressive decline in sales.

Asparagus. The results of the marketing survey made for the processed asparagus industry in 1955 were put to practical use during the year. One of the recommendations to the industry growing out of that survey was that the industry explore the possibilities of packing and marketing asparagus in glass. One processor did pack several thousand cases in glass for distribution within California. The trade response to this pack was such that the processor could have readily moved an additional 10,000 to 12,000 cases within the trade territory in which this pack was distributed. A number of processors made pilot runs of glass-packed asparagus during the year with a view to going into commercial production in 1957. This survey also provided the basis for the development and acceptance of uniform terminology to clarify

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the terms used by pack processors and the trade in describing the various styles of canned white asparagus.

Improving quality and packaging--(RM:c-3550-6)

Activities under this project are concerned with the development of improved standards of quality and maturity for fruits and vegetables and better methods of sizing, grading, and packaging.

During the year, field work was started on four new phases of the project, namely: (1) Thompson Seedless grape maturity in the Coachella Valley, (2) Perlette grape maturity in the Coachella Valley, (3) containers used for California carrots, and (4) Crenshaw melon maturity. In addition to initiation of this new work, detailed reports were prepared and issued covering phases undertaken in previous years and bearing such titles as: (1) "Quality Standards for California Topped Carrots Packed in Cellophane Bags," (2) "The Effect of Temperature Changes on the Soluble Solids Readings of Grape Juice," (3) "Freezing Damage Measurement in Washington Navel and Valencia Oranges," (4) "Watermelon Maturity," (5) "Persian Melon Maturity," (6) "California Bartlett Pear Sizing Practices," (7) "The Development of a Grape Crusher To Be Used When Making Soluble Solids Tests," and (8) "California Tangerine Sizing."

Grapes. At the request of the Coachella Valley Grape Growers League, the department undertook a study of the minimum maturity requirements for the Thompson Seedless and Perlette varieties of grapes grown in that area. Under the California Agricultural Code, shipments of the Thompson Seedless variety are required to test not less than 17 percent soluble solids. There are periods during the harvest season when, due to extremely humid weather, growers experience difficulty in meeting this requirement and have to discontinue harvesting. The purpose of the study is to determine if a change can be made in the code requirements which will permit continuation of harvesting during such periods but which will still prevent the shipment of unpalatable grapes. A combination of two factors, soluble solids and sugar-acid ratio, appears to have good possibilities as the basis for developing a new or alternate minimum standard. Numerous measurements of these factors were made in the field during the year to provide the basic data for this development. The results of these measurements are being evaluated.

In the case of the Perlette variety, it is the belief of industry members that the minimum maturity requirements of 16 percent soluble solids should be increased, or the present soluble solids percentage combined with a desirable sugar-acid ratio, particularly at the beginning of the season. The procedures being followed in the effort to formulate new standards for this variety are similar to those being used for Thompson Seedless.

(California)

Carrots. In order to standardize the master containers used by California shippers in packaging consumer-type cello packs of carrots, the California Department of Agriculture undertook a survey of the industry to determine which of those being used are most satisfactory and which should be eliminated. Results of this survey are in the process of being tabulated.

Melons. An objective method of measuring the maturity of Crenshaw melons is needed by growers and shippers to assist them in their harvesting and grading operations and to provide the basis for establishing a legal minimum of maturity. In an effort to meet this need, the department initiated field work during 1956 to test various potential methods. Melons were selected from the field and at the packinghouse and tested as to (1) firmness, (2) ground spot color, (3) flesh color indicated in the Maerz and Paul Dictionary of Color, (4) soluble solids content of the edible portion taken from plugs evenly spaced around the melon, and (5) flavor, as determined by the observer. After the first tests were made, the melons were stored at 40° F. for 9 days, removed and allowed to ripen at 68° F. for 4 days--to simulate time and temperature conditions involved in making shipments to eastern markets--and tested again. The tests indicated that these melons (juice of the edible portion) should have a soluble solids rating of 9½ to 10 percent in order to have a satisfactory flavor. Flesh color improves gradually as the melons mature, and this determinant shows promise as the basis for an objective standard. However, results to date do not provide a conclusive basis for selecting a particular method to the exclusion of others.

In conducting these studies of maturity standards, the department cooperates closely with the Vegetable Crop Division of the University of California.

Providing new basic information (tree fruits and nuts and bush berries)--(RM:c-4550-10, 45, 46, 53)

Data collected in the annual county-by-county survey under this project of new plantings and tree removals covering tree fruits and nuts were published in June 1956. The survey relating to the commercial acreage, production, utilization, and prices of bush berries was continued and the results published. This report carried county estimates of the commercial acreage harvested in recent years, the acreage planted and the acreage removed in 1955, and the acreage for harvest in 1956. Data on plantings and removals are needed in the development of seasonal forecasts and estimates for these commodities by the Federal-State Crop Reporting Service. Extensive use also is made of the data by growers, marketing agencies, financial and transportation agencies, and Federal and State marketing order boards.

The program to develop and test objective methods of forecasting production of Bartlett pears and cling peaches was continued during the year, and a similar program was initiated for grapes. The work thus far indicates that reliable estimates and forecasts for peaches and pears within specific

ranges of error can be developed out of the methods employed. Good progress is being made in improving efficiency in the job of obtaining sample data. The surveys are providing useful byproduct information, such as data on the sizing rates of fruit; advance information on the degree of injury to fruits from insects, disease, and weather; and early indications of sizes and grades at maturity. Detailed cost records are being kept in connection with the surveys, since costs constitute an important factor in determining whether particular methods are practicable.

Developing methods of certifying nursery stock--(RM:c-3550-27)

This project is being conducted in cooperation with a number of State and Federal agencies. The objective is to develop a virus-free certification program so as to improve the quality of nursery stock and increase market outlets. To accomplish this objective, it is necessary to devise practical methods for detecting, identifying, and eliminating virus diseases affecting nursery stock. The attainment of this goal would be of great economic benefit to the California tree fruit, nut, and grape industries. Research on virus diseases has demonstrated the need for virus-free planting material if uniform and fully productive orchards and vineyards are to be established and maintained.

During the year, work under this project was conducted in 25 counties, and involved nursery stock of the following commodities: Cherries, peaches, nectarines, almonds, plums, prunes, apricots, and grapes. Work was continued on the following phases: (1) Investigation of the nurserymen's needs for propagating material and determining present budwood and understock sources; (2) field examination, including indexing and transmission tests of budwood source trees and understock seed and cutting source trees for the presence of virus diseases; (3) investigations of new and improved diagnostic methods; (4) determination of the feasibility of establishing special budwood source plantings; (5) study of possible changes in nursery practices to avoid the spread of virus diseases; (6) investigation of new diseases discovered; (7) development of procedures for the initiation and maintenance of registration and certification programs for cherry and grape nursery stocks; and (8) establishment of formal programs for registration of virus-free propagating source materials.

As a result of the work done on cherries and grapevines, the California Department of Agriculture held hearings in June and July 1956, relative to the adoption of regulations covering the registration of cherry trees and grapevines for use as propagative sources. Following these hearings regulations were issued and became effective in September 1956. Indications are that many of the nurserymen in the State will cooperate in the program. Regulations for certification of cherry and grape nursery stock were being developed during the year and are expected to be adopted by the time progeny stock from the registered plants of participating nurserymen becomes available.

COLORADO

Improving quality (milk and dairy products)--(RM:c-2550-61)

The Colorado Department of Agriculture, in cooperation with the Denver Milk Producers' Association and Colorado A. & M. College, completed a survey of the milk flavor problem in the Denver area and issued a report thereon. In conducting the survey, specialists, often accompanied by fieldmen from the dairy plants, visited about 400 farmers whose supply of low-quality milk was a problem due to the presence of off-flavors, and assisted them in bringing the problem under control. Fieldmen present were trained in methods of determining the specific causes of off-flavors and in the necessary quality improvement procedures. During the survey, specialists also worked with 18 dairy plants in Denver to detect and correct plant procedures and conditions responsible for off-flavors in bottled milk and dairy products. In the work with these plants, specialists trained men at the milk-receiving platforms in quality determinations as a means of reducing the volume of poor-quality milk accepted.

On the basis of the survey results, it was recommended that the various State agencies and industry organizations interested in the flavor problem prepare a handbook outlining the proper procedures for producing high-quality milk and dairy products at the farm and plant levels. This phase of the project is under way.

Improving marketing practices (peaches)--(RM:c-2550-46)

During the 1955 peach marketing season, the Colorado Department of Agriculture, in cooperation with the Mesa County Peach Control Board, conducted a survey among brokers, wholesalers, and retailers in the important markets for Colorado peaches to determine what improvements were needed in the marketing and promotion of this commodity. The survey indicated that: (1) Colorado peaches for the most part arrive at the markets in good condition, (2) receivers prefer shipments that have been precooled, and are willing to pay the extra costs involved, (3) the market preference is for peaches of 2-1/8-inch minimum and larger size, and (4) point-of-sale material and advertising through local media stimulate retail sales of peaches.

FLORIDA

Obtaining new basic information (citrus fruits)--(RM:c-4550-19)

The citrus tree census, initiated in August 1954 under the joint sponsorship of the Florida Department of Agriculture and the State Plant Board, is now about three-fourths completed on a tree-count basis. Data on nearly 30 million trees have been gathered, covering such information for each tree as location, age, size, variety, root stock, tree spacings, cultural practices, and degree of damage from disease. Field work has been completed in 9 counties with nearly 20 million trees, and partly completed in

(Florida)

8 counties. Work in the remaining 19 counties, which contain only a small proportion of the total commercial tree plantings, soon will be undertaken.

The results of this program, although incomplete, already are proving valuable in the development of a more scientific method of forecasting citrus production in advance of harvest. However, the completed information will be much more useful in that it will make possible (1) dependable forecasts needed by producers, processors, and marketing agencies in planning their marketing programs effectively; and (2) projections of production by varieties and areas, which will be helpful to growers in determining the number and kinds of trees to plant, and to processors and marketing agencies in ascertaining where and when to build new packing and processing plants.

Improving production forecasts (citrus fruit)--(RM:c-4550-54)

The citrus industry in Florida is in need of a reliable preseason forecast of production in order to plan marketing operations intelligently and to make possible an orderly market situation without undue fluctuations in supply or price. In the 1955-56 season, the industry produced and marketed 134 million boxes of citrus fruits, which returned 195 million dollars to its 12,000 growers.

To improve the accuracy of forecasts on citrus production, work was begun in April 1956, in cooperation with the Florida Agricultural Experiment Station and the Growers' Administrative Committee, to estimate, through the application of sampling techniques, the size of the crop by means of limb counts, frame counts, and growth and droppage surveys.

The limb count, completed within a 6-week period, covered 3,600 sample trees, on which more than 400,000 fruit were counted. This count estimated the average number of fruit per tree by counts of fruit on selected limbs of sample trees.

The frame count, completed in 26 days, covered fruit within 7,700 sample frames. This count furnished an estimate of the number of fruit per unit of bearing surface area, and consisted of counts of the number of fruit coming within a horizontal projection of a frame 2 feet square placed against sample trees.

In the growth and droppage surveys, 7,000 fruit measurements were made in August and 9,700 in September, and drops were counted in September under 900 trees. The growth survey gives an estimate of the average size of fruit at monthly intervals between August and harvest by measuring the circumference of sample fruit, while the droppage survey estimates each month the number of fruit that have fallen from the average tree since counts were made. The field work on this phase of the study will continue until May 1957.

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Analysis of the data collected in these surveys was under way at the close of the year, and will be completed in time for use in making the initial forecast of the season. The effectiveness of these techniques cannot be determined until they have been tested for a few years by comparison of preseason forecasts to postseason production estimates.

Obtaining new basic information (tomatoes)--(RM:c-4550-58)

The commercial tomato-producing area of Florida, consisting of 62,000 acres, has increased over 80 percent within the last 16 years, with an increase in the production for fresh market of about 3½ times. In the 1955-56 season the approximate f.o.b. value of the production for fresh market was 53 million dollars, while that for processing was 1.3 million dollars. Florida tomatoes move into the national and international markets from November to June. With the growing importance of this crop in Florida, its 2,000 growers have recognized that they need an effective marketing program, and that, to plan an effective program, they should know well in advance of the actual marketing period the amount of plantings, the planting dates, the locations of the plantings, the progress being made, and the anticipated volume during specific periods of time.

To obtain this information, a project was initiated in August 1956 in cooperation with the Florida Agricultural Experiment Station and the Florida Tomato Committee. Three field supervisors were trained and stationed in the principal areas of production. The basic approach to the problem has been the enumeration of plantings by weeks, the information being obtained by contact with organizations or individual growers.

By September 5, two reports showing weekly plantings, classified by direct seeding and transplanting, for the principal areas had been issued to a mailing list of 700. These reports will be continued on a weekly or biweekly basis, depending on the need. Checking on plantings will continue on a weekly basis, and observations of growth will be recorded by age groups as the crops progress. When harvesting begins, the rate of harvesting by age groups will be determined on a sample basis.

GEORGIA

Improving quality and expanding market outlets (poultry and eggs)--(RM:c-2550-67)

This project was initiated in January 1956 to demonstrate proper methods of grading, candling, packaging, and handling eggs, to assist producers and handlers in meeting the grading requirements of the Georgia Egg Law and to maintain the quality of eggs in the marketing process. Specialists held 45 candling and grading schools during the year, which were attended by 1,500 persons. The facilities of the press and radio and television programs

were used to disseminate information to producers, handlers, and consumers on grades, sizes, and quality of eggs. Several large department stores in Atlanta cooperated with the Georgia Department of Agriculture in presenting demonstrations, before consumer groups, of the grades and sizes of eggs and in providing consumers with information on the advantages of buying graded eggs. As a result of this work, progress has been made in the improvement of quality and the expansion of market outlets for graded eggs produced in Georgia.

Improving quality and expanding market outlets (fruits, vegetables, and nuts)--(RM:c-2550-68)

On January 1, 1956, this work was initiated to improve quality, packaging methods, and market facilities, and to expand market outlets for fruits, vegetables, and nuts. This activity is directly related to the recently enacted legislation which empowers the commissioner of agriculture to prevent the sale of cull produce on the farmers' markets within the State. The main emphasis of the program to date has been placed on the marketing of tomatoes, cantaloups, and watermelons. During the marketing season, 8 marketing specialists were assigned to production areas to show producers how to grade, package, and load produce for market. Specialists supervised the grading, sizing, and crating of cantaloups on the Cordele and Tifton markets. In previous years all the cantaloups were sold ungraded and in bulk on these markets. This phase of the work was successful in attracting new buyers to the farmers' markets, and during the year the demand for properly graded and packaged cantaloups exceeded supplies available. Assistance also was provided to two of the farmers' markets in selecting and installing equipment to grade and pack cantaloups properly. Two other farmers' markets were assisted in the development of facilities to wash, grade, and pack leafy green vegetables. In addition, chainstores and other buyers were contacted to inform them of what was being done to improve the grade and pack of Georgia vegetables.

The activity conducted under this project is reported to have been instrumental in obtaining higher prices for these products. For example, the average wholesale price of tomatoes for 1956 was approximately $2 per field box above the average 1955 price, and the 1956 average price of cantaloups and watermelons was approximately double the 1955 average price for these products.

Improving quality and expanding market outlets (livestock)--(RM:c-2550-77)

This project to promote the marketing of livestock on a quality basis was initiated on July 1, 1956. Specialists worked with the Extension Service in making arrangements and in providing demonstrational assistance on grading at the feeder calf sales held September 18 and 21 at Americus and Rome, Ga. At the feeder calf sale held at Americus, 650 feeder steers were sold in pens of 5 to 12 head on a graded and uniform weight basis. The 750 steers and heifers sold at the Rome feeder calf sale were marketed in a similar manner. These sales were successful, with the good and choice grades selling from $1 to $2 per hundredweight above the current area market price. Meetings were

(Georgia)

held with the Georgia Independent Meat Packers Association, the Extension Service, and the Agricultural Experiment Station to develop plans for a sound hog-marketing program in Georgia.

Improving quality and increasing value (cornmeal)--(RM:c-2550-78)

Work was started on this project on June 1, 1956. A current list of corn mills in Georgia is being compiled, and meetings are being held with producers and millers to explain the objectives of the program. The objectives are to improve the quality of corn food products through proper sanitation and insect and rodent control programs; to increase the efficiency of milling operations through improvements in facilities, equipment, and work methods; and to develop market outlets for quality cornmeal products. During the short period that this project has been under way, 107 commercial corn mills have been surveyed to determine the extent of the problem and to initiate individual plant improvement programs.

Improving quality and market value (seed)--(RM:c 2550-79)

The State department on July 1, 1956, initiated a project to facilitate the marketing of Georgia-produced seed by maintaining and improving quality. Specialists made a survey which indicated that the small seed plant operator did not know how to install and adjust machinery properly and how to select proper screens for cleaning different seeds. As a consequence of this lack of know-how, the seed of many crops in Georgia is of such low quality that it is unfit for planting purposes, even though it is better adapted for local planting purposes than seed of higher quality shipped in from other areas. Since this work was initiated, 50 seed processing plants have been assisted in selecting equipment best suited to their operations and in making adjustments in equipment. Specialists took samples of seed at the various stages of processing and analyzed them for quality defects to determine where the breakdown in quality occurred. For seeds where the factor of low quality is traceable in part to faulty combining operations, such as for crimson clover, work has been started to improve harvesting methods.

Providing additional basic data and marketing information to aid in the improvement and expansion of marketing of Georgia agricultural products--(RM:c-4550-57)

This work was initiated July 1, 1956, to fill the need for more detailed, accurate, and timely information on a large number of agricultural products such as poultry, eggs, commercial broilers, beef cattle, hogs, fluid milk, vegetables, peaches, pecans, and grain. This information will be useful to producers and marketers in making marketing decisions as well as in developing a sound marketing program for Georgia agricultural products.

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HAWAII

Encouraging the use of grades and standard containers, improving quality, and expanding outlets (fruits and vegetables)--(RM:c-2550-57)

In cooperation with the Extension Service, meetings were held on every major island in Hawaii to demonstrate to farmers and shippers proper methods of grading and packing local fruits and vegetables. Commodities included under project activities were snap beans, cabbage, carrots, celery, cucumbers, lettuce, ginger, onions, papaya, potatoes, squash, and tomatoes. Specialists assisted in holding a public hearing relative to the adoption of standard containers for the commodities. As a result of the hearing, standard containers were adopted for cabbage, carrots, celery, cucumbers, lettuce, onions, squash, and tomatoes.

Developing new and revised standards for grades of processed fruits and vegetables--(RM:c-2550-72)

A project was initiated in July 1956 to formulate grades and standards and to develop methods of measuring quality and determining formulations of processed products. Work on this program, which is designed to facilitate the marketing of processed agricultural products packed in Hawaii, has not reached the reporting stage.

ILLINOIS

Improving methods of handling farm products and expanding market outlets--(RM:c-2550-16)

Eggs. The Illinois Department of Agriculture continued to place major emphasis under this project on the improvement of egg quality and on providing assistance to producers, dealers, and retailers in adopting marketing practices and methods necessary in complying with the Illinois Egg Law. With intensification of enforcement activities under this law, the need developed for an accelerated and coordinated program to acquaint those affected by the law with its requirements and to demonstrate proper methods of grading, candling, handling, storing, and displaying eggs. To meet this need, representatives of the various agencies and groups in the State interested in improving egg marketing formed a committee to plan and direct this work. Specialists of the Illinois Department of Agriculture played an important part in carrying out the program developed by this committee. Extensive use was made of the various informational media to explain the egg quality improvement program, including requirements of the egg law, methods of handling and caring for eggs to insure quality maintenance, and points for consumers to consider in buying eggs. Other agencies, such as the University of Illinois, Southern Illinois University, the Illinois Agricultural Association, and the Illinois Poultry Industry Council assisted in preparing articles for this phase of the program. To complement these efforts and to provide more direct assistance to egg dealers and retailers in improving egg handling, 71 demonstrational meetings were held in

(Illinois)

66 of the 102 counties in the State. The average attendance was 38 persons, most of whom were egg dealers and retailers. An egg exhibit displayed at the Illinois State Fair also was utilized to demonstrate the equipment and methods needed in preserving egg quality. This exhibit was planned and developed in cooperation with the Illinois Poultry Industry Council.

The Illinois department continued to assist in developing more graded-egg markets in the State. In cooperation with Southern Illinois University, a survey of the need for, and potentials of, graded-egg markets in southern Illinois was made. This survey revealed that an adequate volume of eggs is produced in this area to support several efficient graded-egg plants. This information will be useful to agencies or groups planning to establish or expand graded-egg facilities in the area. Several of the existing graded-egg plants in this area which were developed with the assistance of specialists from the Illinois department increased their volume during the year. Activities of that department were instrumental in establishing additional buying stations using Federal-State grading systems.

Cucumbers. The Illinois department again assisted the Little Egypt Vegetable Cooperative, which it helped to organize several years ago, in improving the grade and pack of cucumbers. At the suggestion of specialists, the cooperative developed a special pack of the larger U. S. No. 1 grade cucumbers, packed 24 to a fiberboard carton. By adopting this practice, the cooperative was able to improve substantially the appearance and uniformity of its bushel pack and offer to a special segment of the trade a desirable and uniform carton pack of slicing cucumbers. As a result of this improvement in grading and packing methods, the cooperative's 1956 pack sold for an average of about $3.60 per bushel equivalent, or about 75 cents per bushel above the average price for the individual farmer pack sold at the Anne, Ill., market.

Tomatoes. Specialists of the department provided assistance to a newly formed tomato growers' cooperative in adopting proper methods of grading and packing the staked tomato production of its members. The uniformly sized and color-sorted tomatoes packed by the cooperative met with active dealer acceptance in the Chicago market. The net price to the cooperative averaged about $1.70 and $0.95 per 10-pound basket, respectively, for the No. 1 and unclassified grades. The average price received by growers who sold at the Anne, Ill., market was about $0.65 per 10-pound basket.

Peaches. In cooperation with the University of Illinois, specialists undertook a program to improve the quality of peaches moving to market. As a phase of this program, tests were made of a set of color charts developed at the university to assist producers in harvesting peaches at the proper degree of maturity so the fruit would reach consumers in a desirable stage of ripeness. Some progress was made in encouraging producers to market riper peaches, but basic problems of production and marketing must be overcome before substantial improvement can be expected.

(Illinois)

Improving marketing information--(RM:c-2550-50)

Fruits and vegetables. The cooperative program with the Illinois Fruit Council in furnishing information to buyers concerning the availability of Illinois fruits and vegetables again proved valuable in helping growers in one area to meet an emergency situation. As the result of a hail storm in the Union County area shortly before harvest, an estimated 50,000 bushels of peaches were damaged and in danger of being lost unless they could be moved readily. Through a special informational letter sent to 6,500 truckers and other buyers over a 24-State area, sufficient buyer interest was generated to move these peaches at an average price of 75 cents a bushel in bulk. After deducting picking and loading costs, growers realized nearly $30,000 for peaches which otherwise would have been a total loss.

Livestock. Consideration was given during the year to the establishment of a livestock price reporting service to cover transactions on the interior and auction markets in the State. A study by the University of Illinois has provided background information on the inadequacy of the present livestock price reporting system and on improvements desired by producers. Contacts were made with country point buyers and representatives of marketing agencies and producer groups to lay the groundwork for an experimental program in this field.

Eggs. Increased buying of eggs at country points on the basis of grades has given rise to the need for greater coverage of these markets in reporting prices and for more detail in the reports concerning prices by grade and size. Information is being collected from 16 to 20 points and released twice a week by radio.

Expanding outlets for dairy products--(RM:c-2550-63)

This project is being conducted in cooperation with the American Dairy Association of Illinois and has been in operation for about a year. Activities so far have been concentrated on assisting retail food stores in developing and carrying out dairy product promotional programs, staging special dairy festivals and exhibits, and encouraging schools and institutions to use more dairy products. During the year, assistance was given 25 retail stores over the State in carrying out promotional programs. In a number of instances, the processing plants supplying these stores participated by defraying the expenses of point-of-sale material and of local newspaper advertising. Increases in dairy product sales in these stores during the promotion week averaged about 75 percent over the 2-week period preceding the promotion week. About one-third of this increase in sales was retained in the 2-week period following the promotion week.

Assistance was provided several county dairy organizations in planning and conducting dairy festivals designed to promote greater use of dairy products. Specialists also built and staged exhibits at a number of fairs

(Illinois)

and conventions, including the Illinois State Fair. In connection with the special School Milk Program, specialists conducted surveys to determine the problems involved in certain cities in expanding the use of milk in schools. It was found that in many cases schools were reluctant to participate in or expand school milk programs because of the additional responsibilities which thereby would be placed on the staff. Procedures were developed and established in several schools to make these programs function more smoothly. Using the methods adopted in one city school system as a model, the specialists helped other systems during the year to overcome problems which have hampered full development of school milk programs.

Improving facilities and packing and handling methods--(RM:c-3550-12)

Tomatoes. Assistance was given a group of growers in the Cobden, Ill., area in forming an organization and developing facilities to improve the marketing of staked tomatoes. At the suggestion of specialists, this organization, the Cobden Tomato Cooperative, installed a modern washing and grading machine which enabled it to sort and grade tomatoes efficiently into packs of uniform size and color. The financial results of this activity were discussed under project RM:c-2550-16.

Cucumbers. Specialists continued to provide assistance to the Little Egypt Vegetable Growers' Cooperative in improving the packaging of cucumbers marketed by this organization. One of the improvements adopted was the use of a fiberboard carton in packing slicing cucumbers of premium quality; another was the changeover to a different type of basket for the bushel pack which, although somewhat more expensive, reduced the labor required in facing and filling, and aided in producing a more uniform and attractive pack.

Providing new basic data--(RM:c-4550-37)

Under this project, producers and marketing agencies are being provided with new and basic data needed in planning both short-time and long-range marketing programs.

Field crops. There is a growing demand for a varietal breakdown of the acreage planted or seeded each year. Different varieties of a crop have different physical or chemical properties which affect suitability for certain end uses and which influence price. Data on the percentage of acreage planted or seeded to different varieties in each of the State's 9 crop reporting districts were issued during this year for such crops as alfalfa, soybeans, wheat, and oats. Other important information requested and being provided for field crops concerns prospective production and supplies by districts, and weekly data on the development of the growing crops and progress of the harvest.

(Illinois)

Livestock. A report was issued during the year on the sheep population of the State by breeds, patterned after similar reports issued in preceding years for cattle and hogs. To assist livestock producers, marketing agencies, and processors in making marketing plans, the quarterly surveys on sow farrowings, calf births, and, during the lambing season, lamb births were continued. The data from these surveys were utilized in making monthly estimates of prospective marketings of these classes of livestock.

Fruit. The annual survey of apple and peach tree numbers was made and the results were published to assist fruit growers and others in keeping abreast of trends in tree plantings and removals.

Timber. The semiannual timber products report, first issued in 1952, was continued, and indications are that this service has been instrumental in reducing the wide disparity which formerly existed in values among different uses of timber and prices for the same product in various areas of the State.

General. Work proceeded during the year in the assembly of data and material for marketing bulletins covering field crops, livestock, poultry, dairy products, and fruits and vegetables, scheduled for publication in the near future.

INDIANA

Providing special market information and improving marketing efficiency--(RM:c-2550-11)

Grain. The grain marketing activities in Indiana during the year were concerned with (1) dissemination of market information to farmers and marketing agencies to assist them in making marketing decisions, and (2) providing technical guidance to operators of grain elevators and feed mills in improving operating efficiency. Information on such subjects as storing vs. selling soybeans, the feed outlook, seasonal changes in feed prices, and prices for the new corn crop was discussed on 7 Statewide radio programs. Four articles dealing with grain marketing were published in "Economic and Marketing Information for Indiana Farmers," a monthly publication sent to about 20,000 farmers. Grain marketing information also was presented at meetings sponsored by county agents in 24 counties with over 700 farmers participating. Technical assistance provided by specialists to grain elevator operators resulted in many improvements which contributed to operating efficiency. For example, assistance in modifying the construction plans of an elevator during the building process enabled the operator to increase the efficiency of grain handling by 30 percent. Another elevator adopted a simplified weight recording system which reduced the time required for the weighing operation by about one-third. Several elevators added new storage facilities to increase volume and reduce per-unit handling costs.

(Indiana)

Frozen food locker plants. Assistance was provided operators of frozen food locker plants in increasing operating efficiency and in reducing costs through emphasis on methods eliminating wasted time, improving handling methods, rearranging plant layouts, and increasing volume. Demonstrations and discussions of improved methods of locker plant operation were presented at district and Statewide meetings of plant managers and employees, and at a 2-day management clinic attended by about 35 managers. About 80 percent of the approximately 300 locker plant managers in the State attended district and Statewide meetings. The net income of Indiana locker plants increased an estimated 6 percent during the year. This higher income was brought about through an increase in volume of business and more efficient operation, to which the service program made substantial contributions.

Livestock. Feeder cattle demonstrations were continued as one phase of the service program relating to livestock. At these live animal demonstrations, of which 6 were held during the year, the various grades of feeder cattle with matching grades of finished cattle were shown. About 2,000 producers attended these demonstrations. Feedlot and market tours were utilized to train foremen to recognize and evaluate the various grades of feeder and slaughter cattle. Assistance also was provided beef cattle producers in making marketing decisions through the dissemination of outlook information following each of the quarterly "Cattle on Feed" reports and at the annual Purdue cattle feeder program. Demand for the quarterly outlook reports has increased to the point where general distribution to beef cattle producers in the State is being considered. At present they are being furnished to county agents for use in their county programs and to a limited number of producers.

Continued emphasis was placed on the program of encouraging the marketing of meat-type hogs. More than a thousand hog producers participated in the live-hog and carcass grading demonstrations, feedlot tours, and the tour to the Ohio Service Evaluation Station conducted by Purdue University specialists. In connection with several of the hog carcass demonstrations, it was possible to secure cutout data and to provide reports to participants showing the differences in value of different types of market hogs. A survey made by specialists relating to hog prices revealed that about three-fourths of the local markets in Indiana now take grade into consideration in determining price. The results of this survey, which were published in "Economic and Marketing Information for Indiana Farmers," provided more evidence that farmers would profit by marketing more meat-type hogs.

Among numerous other activities relating to livestock marketing, specialists participated in a series of 5 meetings devoted to the topic of changing livestock marketing patterns. These meetings were sponsored by a farmers' marketing organization and were attended by various agricultural leaders over the State.

Fruits and vegetables. The buyer information service, designed to expand outlets for locally produced fruits and vegetables, was continued during

(Indiana)

the year. Weekly issues of the "Produce Distributor's Report" were prepared and sent out to about 700 potential buyers of Indiana fruits and vegetables. This report provides information by areas on such items as the estimated acreage and production of the various commodities, expected beginning and peak harvest dates, and anticipated volume by varieties. A companion report was disseminated weekly through the Purdue Information Service providing consumers with information on "best buys" in both processed and fresh fruits and vegetables.

A special price information service was developed during the 1956 watermelon marketing season to assist in stabilizing the local market for this commodity. Daily contacts were made with buyers, shippers, and growers in the southwestern Indiana producing area to obtain price information, which was summarized and broadcast the following morning by 4 radio stations. It is estimated that this service resulted in an average increase of about 1/4 cent per pound in the price to growers over the season. Based on the volume sold, this meant a total increase in returns to watermelon growers of approximately $200,000.

Developing an orderly pattern of marketing farm products--(RM:c-2550-17)

The major activities under this project are conducted in cooperation with the Indiana Farmer-Retailer Committee, a group composed of producers and marketing agency representatives. This committee, with the assistance of Purdue University specialists, has the responsibility for coordinating informational and promotional campaigns designed to move plentiful commodities into consumption through regular trade channels. The industry requesting assistance participates actively in the campaign. During the year, promotional campaigns were undertaken for pork, broilers, dairy products, peaches, and apples. These were conducted by providing to informational media news stories relative to the plentiful commodity and suggested recipes and methods of cooking, and by securing the cooperation of retailers, restaurant operators, and institutions in promoting the sale of the commodity or in increasing its use. In the pork campaigns, packers were supplied with informational material with which to alert their trade. Material was supplied the Indiana Farm Bureau for a leaflet on pork which that organization printed and distributed. One major retailer organization indicated that pork sales in its Indiana stores increased 68 percent during the campaign period, a larger increase than was experienced in its stores elsewhere.

Plans were developed during the year for expansion of the consumer information program. Several specialists are to be added to supply food marketing information to consumer agents, home agents, food editors, and others in Indiana counties and cities. Various activities were carried out during the year to increase the availability of consumer marketing information and to organize local programs. Specialists prepared 21 radio tapes and 20 news articles on food marketing subjects which were released to 52 newspapers and radio stations, 77 home agents, and 2 consumer agents.

(Indiana)

A series of marketing clinics for management personnel of meat packing plants, livestock markets, grain elevators, dairy plants, and poultry processing plants is being considered, to provide agricultural marketing leaders with an opportunity to discuss and analyze marketing problems and to obtain the latest marketing information.

In cooperation with the Standardization Subcommittee of the Indiana Farmer-Retailer Committee, Purdue specialists drafted proposed legislation for the establishment of a State brand program. Under this proposal, packers and distributors of Indiana farm products would be permitted to use a State label on their products, provided they meet certain requirements as to quality, uniformity, and other factors.

Demonstrating uniform grading procedures and improving quality (dairy products)--(RM:c-2550-36)

Under this project 71 milk plants and 28 butter plants were provided assistance designed to improve and standardize the quality of their milk and dairy products. These plants handle about 65 percent of the milk and 85 percent of the churn cream sold at wholesale from Indiana farms. Assistance to these plants is provided through district grading meetings, grading surveys in the field, and grading schools and clinics. During the year, specialists conducted 13 district meetings for milk plant representatives and 21 for creamery representatives. At these meetings, attended largely by plant fieldmen, a progress report was given summarizing the quality tests, milk rejections, and farm inspections made by each plant during the preceding month. The chief value of these meetings is the training which fieldmen receive in methods of improving the quality of milk and cream at the farm level. Field surveys were utilized partly as a means of verifying the accuracy of reports on quality tests and adherence to grade standards which participating plants are required to submit to project supervisors. However, in connection with checking the accuracy of milk and cream grading procedures, specialists held many consultations with graders and plant officials relative to particular quality problems and how best to solve them.

To implement the work done in the field in training plant personnel in methods of improving milk and cream quality, specialists held a series of 8 schools for milk graders and 11 for cream graders, attended by over 700 graders, fieldmen, haulers, and milk sanitarians. These schools were held in cooperation with the dairy division of the State board of health.

Statewide conferences were held at Purdue during the year for fieldmen, plant operators, haulers, and producers, for discussion of methods of improving quality and increasing plant efficiency and the problems of bulk milk handling. Clinics for such products as ice cream, cottage cheese, and market milk were held in connection with these conferences. Participating plants were permitted to submit samples which were analyzed for composition and bacteria content, and scored for flavor, body, texture, and color.

(Indiana)

A written report was furnished each plant submitting a sample, pointing out any defects in quality and giving instructions for their correction. Clinics of this type also were held periodically in various districts of the State.

Specialists participated in a study and preparation of a report on the problems of bulk milk handling. This method of handling milk is making great gains in Indiana, but with this development have come many new problems in quality maintenance and in other aspects of milk marketing.

Since this project was initiated 6 years ago, the volume of milk rejected by dairy plants has been reduced by about 30 percent, conditions of excessive sediment and off-flavors have decreased by 20 percent, and the percentage of Grade A butter manufactured has increased from 12 percent to about 23 percent.

Improving quality and efficiency in vegetable canning plants--(RM:c-2550-55)

Canners of such seasonal crops as tomatoes, corn, peas, and pumpkin were assisted during the year in improving the quality of their products through technical training provided to their employees in such quality control techniques as the Howard mold count method, insect fragment detection, fly egg detection, and grading products according to USDA standards. Training in these procedures was given 115 plant technicians at the 1955-56 Indiana Canners' Technicians School. These technicians represented canning plants throughout Indiana and from other Midwestern States. Additional training was given the technicians through another phase of the project, under which specialists maintained supervision over their activities while on the job. In connection with this phase of the project, specialists assisted plant operators in adopting proper sanitation measures and in determining compliance with the Indiana Canners' Sanitary Code. Technical information relative to new developments in canning procedures was furnished canners through a monthly newsletter.

Providing new market information (hogs)--(RM:c-4550-6)

The Indiana Crop and Livestock Reporting Service continued issuing the March 1 and September 1 pig reports to supplement the semiannual reports.

Developing an experimental market news program (hogs)--(RM:c-4550-52)

Work was initiated on an experimental price reporting program covering 61 local markets which handle between 3 and 4 million hogs a year. Price information on various grades of hogs was assembled from these points and disseminated daily by radio, press, and mailed bulletins.

This program provides producers with price information for various grades of hogs on over 50 percent of the hogs marketed in Indiana. Such information aids the producer in determining when and where to market his hogs.

(Indiana)

As a result of this program, some apparent changes have occurred in the patterns of receipts and price relationships between the interior markets and the Indianapolis terminal market. For example, during the latter 2 months of the 4-month period after this program was started, it was reported that the price differential between the interior markets and Indianapolis had narrowed from 6 cents a hundred pounds for 200- to 220-pound hogs and from 32 cents a hundred pounds for 280- to 300-pound hogs. If this price relationship between the interior markets and Indianapolis is maintained, it will mean over $1,000 additional returns a day to the producers selling hogs at local market points throughout the State.

IOWA

Obtaining new market information and data--(RM:c-4550-32)

Livestock. The Iowa Department of Agriculture continued its program of providing livestock producers and marketing agencies with new and improved reports on livestock marketings to assist them in their marketing programs. The purpose of this work is to develop techniques for estimating, and to develop estimates of, expected marketings of hogs from Iowa farms for 2 months in advance, so that farmers may adjust their marketings on the basis of their own reported intentions. Monthly releases, which are used widely, were distributed to cooperating farmers and to the various news media. In view of the relatively greater difficulties that cattle feeders have had in anticipating marketing data, forecasts of cattle marketings were suspended, effective December 1955, pending further study and analysis. In order to provide the most reliable information possible in these reports, efforts were continued to improve their accuracy.

To assist in the determination of prospective marketings of hogs and to guide hog producers in their breeding and marketing plans, monthly releases on the number of sows farrowing were issued. This study has assisted the industry in forecasting receipts and in the orderly handling of hogs at the market. It also has helped hog producers by providing them with timely information for adjusting to changes in prospective marketing patterns. Further analysis of seasonal patterns and the testing of sampling techniques are being undertaken.

To make available more frequent information on sow farrowing intentions and to provide a sound basis for the monthly sow farrowing estimates discussed, quarterly releases on sow farrowings were issued during the year, with estimates of farrowings for the preceding quarter and for the succeeding 2 quarters. This program also was carried on by 8 additional hog-producing States--Ohio, Indiana, Illinois, Wisconsin, Minnesota, Missouri, South Dakota, and Kansas--and an exchange of information through their Federal-State statisticians made possible the issuance of a report on a regional basis. The results of this line of work have received favorable response from many sources.

(Iowa)

Inventory data on hogs and cattle which are basic to other livestock studies were made available again this year for public dissemination.

Dairy products. Background work in integrating available data on milk production and marketing patterns on a year-to-year basis has been largely completed. Similar information is being prepared on numbers of cows milked and milk production per cow. Data on feed fed dairy animals, prices for dairy products, and product utilization still are being assembled and analyzed for a proposed publication which will be used as a guide in the improvement of marketing facilities and in further studies in the dairy marketing field. It is anticipated that much of this information will be published shortly.

KANSAS

Improving the quality of dairy products--(RM:c-2550-18)

The Kansas State Board of Agriculture continued its comprehensive program of assisting producers, cream stations, and dairy processing plants in improving the quality of raw milk used in the manufacture of dairy products and the quality of the manufactured products. In cooperation with the Cream Quality Committee of the Kansas Butter Institute, the Dairy Department of Kansas State College, and the Federal Food and Drug Administration, specialists of the Kansas board held 10 area cream quality schools to assist operators of cream buying stations in improving cream quality. In addition, they conducted two Statewide schools for creamery plant graders and one school for creamery field superintendents in methods of improving cream quality. Actual training in cream grading was included as a part of the program at these schools. Demonstrations were held at numerous cream stations over the State to impress on both producers and operators the importance of the sediment problem in cream quality. Specialists assisted creamery operators in determining the particular causes of poor-quality butter and in taking corrective actions through plant surveys and flow line analyses. For the flow line analyses, samples were taken of the raw cream, cream after pasteurization, cream in line to the churn, cream after 10 minutes churning, the buttermilk, and the finished butter. These samples were laboratory tested for bacteria count, proper pasteurization, yeast and molds, butterfat and total solids, and keeping quality.

Plant surveys, employing USDA procedures, were conducted of all cheese and powdered milk plants in the State to serve as a basis for improving plant sanitation and processing procedures. Work also was continued with plants manufacturing ice cream, ice milk, cottage cheese, and condensed milk to improve sanitation and processing.

The program in Kansas has resulted in a supply of higher quality raw milk and cream for manufacturing purposes and in the upgrading of the dairy products manufactured.

(Kansas)

Improving marketing methods and expanding outlets--(RM:c-2550-19)

Eggs. The egg marketing improvement program of the Kansas State Board of Agriculture has as its objectives the development of more graded egg buying stations, establishment of a uniform basis of buying and selling, increased use of grade standards in retailing eggs, the development of additional outlets for eggs, and increased efficiency in the physical handling of eggs. In conducting this program, considerable emphasis has been placed on developing a better understanding among producers, dealers, and retailers as to what constitutes egg quality. Also as a part of the program, marketing agencies are being encouraged to adopt official grades as a basis for their buying and selling operations. In promoting better egg quality, specialists, in cooperation with the Extension Service, held about 25 demonstrational meetings and 15 training schools for some 4,000 producers, buyers, and retailers.

Progress under this program is being reflected in an increase in the number of egg plants under Federal-State supervision and in the number of producers grading their own production. Since Federal-State grading services were initiated in the State in 1952, the volume of eggs officially graded has increased to about 8,000,000 dozens annually. It is estimated that the improvement in quality brought about under this program resulted in an additional return to producers last year of $700,000 to $800,000.

The requirements of the Kansas Egg Law with respect to grading and labeling of all eggs sold at retail has stimulated interest in establishing facilities and installing equipment which will permit the adoption of more accurate and efficient methods of grading and reduce deterioration. During the year, assistance was given 10 egg plants in making improvements designed to attain these objectives.

Thirteen egg buying stations cooperated with the Kansas board in furnishing daily price information for its egg price reports. Price information from these sources, which was obtained on a grade basis, was compiled and released daily to the wire facilities for distribution to newspapers and radio stations throughout the State. This service was widely used by producers and marketing agencies in their marketing operations and appears to have had a stabilizing effect on quotations and to have encouraged buying stations to buy on a quality basis. A survey made in June 1956 of egg handling and marketing practices followed by Kansas flock owners indicates that about 43 percent of the eggs produced were being marketed on a grade basis, compared with only 33 percent a year earlier.

Eggs, milk and dairy products, and meat. Specialists of the Kansas board participated in programs designed to promote increased consumption of these products. These programs were conducted in cooperation with State and national producers or industry organizations, and featured such activities as demonstrations before various groups and television audiences of various

methods of preparing the products and using them in varying the menu. These activities were timed to coincide with the periods when the products were in plentiful supply.

Furnishing new market information and basic data--(RM:c-4550-7)

Grain. Through the 1956 wheat quality survey, wheat growers, grain dealers, and millers were kept informed of the protein content and test weight of the wheat crop by counties as the crop moved into commercial marketing channels. During the main marketing period, which in 1956 extended from about June 14 to July 19, data on the quality of wheat being shipped from different points in the State were assembled from the records of the Kansas and Missouri Grain Inspection Departments, and, after analysis and summarization, were released each Tuesday and Friday morning to the wire services. This preliminary release was followed shortly by a more detailed report, sent to persons interested in receiving more complete information about the quality of the crop. At the end of the marketing season, a final summary of the data was prepared and released. This summary included comparative data for previous years.

To assist farmers, grain handlers, and transportation agencies in planning for the marketing of the 1956 grain crops, a comprehensive survey ahead of the harvest was made of commercial grain storage capacity, grain stocks, and unoccupied space in each county. The survey results, issued on June 21, 1956, provided private concerns and Government agencies with important information relative to where shortages were likely to develop and where new facilities could be justified.

The county-by-county wheat variety survey was continued to provide wheat growers, grain dealers, millers, the Agricultural Experiment Station, the Extension Service, and Government agencies with information on the progress being made in replacing varieties of poor milling quality with those having desirable properties. The survey revealed that only about 1 percent of the 1956 acreage was planted to varieties which are discounted under the Government's price support program.

Grain, livestock, poultry and eggs. The value of the midmonth wheat price estimates to growers and marketing agencies has been enhanced through activities under this project in assembling and releasing information on grade and price as well as geographic price differentials. The reporting of wheat prices on these bases was continued during the year. Similar improvements have been made and continued in the midmonth price estimates for beef cattle, eggs, and poultry.

Eggs. A survey of egg handling and marketing practices of Kansas flock owners was made in June 1956, and the results were summarized and released. This survey revealed that improvements have been made in egg marketing methods following enactment of the egg law. For example, in June 1956 about one-sixth more eggs were being sold by producers on a graded basis than a year earlier.

(Kansas)

Also the percentage of producers marketing eggs 2 or more times a week increased to 50 percent from the 44 percent level in 1955. The results of this survey are to be used by the Kansas board and the Extension Service as a basis for conducting their service and educational programs to improve egg quality further.

Livestock. The Kansas Crop and Livestock Reporting Service continued its March 1 and September 1 surveys relating to the pig and calf crops to supplement the regular June 1 and December 1 surveys. From these surveys, State estimates were prepared and released for sow farrowings by months for the preceding 3 months and intended farrowings for the following 3 months and 6 months. Kansas and 8 other hog-producing States--Indiana, Iowa, Illinois, Minnesota, Missouri, Ohio, South Dakota, and Wisconsin--have initiated reports of this type, and by exchanging this information through their Federal-State statisticians they provide the basis for the issuance of a regional report. A calf crop report was issued during the year showing a historical series of calf crop estimates and estimates of the calves born each month of 1954 and 1955. Data from these quarterly surveys were utilized in making these monthly estimates.

KENTUCKY

Improving marketing methods and expanding outlets--(RM:c-2550-2)

Strawberries. The Kentucky Department of Agriculture expanded its program to assist strawberry growers in improving the grade and quality of the strawberry pack through demonstrations at meetings on farms and at shipping points of proper picking, grading, and packing methods. Assistance was extended to about 2,000 growers during the 1956 season, and it is estimated that the program increased the volume of U. S. No. 1 grade berries for fresh market by at least 25 percent. On the basis of the prevailing price differentials between the U. S. No. 1 grade and the lower grades and the quantity of fresh market berries marketed, this improvement in the pack resulted in an additional income of about $125,000 to Kentucky strawberry growers. Specialists of the University of Kentucky joined in this effort so that the maximum number of growers could be reached and assisted at the demonstrational meetings.

In addition to the quality improvement work, the department provided an informational service to buyers over a wide area advising them of crop and marketing developments. A publication, "The 1956 Kentucky Strawberry Guide," was distributed to these buyers as a part of this service. This publication included information for each producing area, assembled by the Kentucky department and the Extension Service, relating to expected bearing acreage, condition of beds, varieties of both old and new plantings, expected beginning and ending shipping dates, transportation and icing facilities, and local sales organizations. This informational service was particularly helpful to new grower groups and associations in locating outlets.

(Kentucky)

Eggs. In cooperation with county agents, department specialists conducted 25 meetings over the State to demonstrate proper methods of candling, grading, and caring for eggs. Exhibits demonstrating these methods were staged at 12 county fairs and numerous other events during the year. Specialists also held training schools for egg graders as a means of encouraging further increases in graded egg operations in the State.

Livestock. The program was continued of assisting livestock auctions over the State in improving operating methods and facilities. Specialists helped two auction operators in planning new facilities to replace those destroyed by fire.

A modern method of speeding up sales and providing buyers and sellers with timely information regarding transactions during the auctions was demonstrated to auction operators. This method involves the use of a visual device as a means of communicating information about each transaction to the auction audience. Several auction operators adopted the method during the year. A survey was initiated among auction operators to determine their reaction toward a voluntary livestock grading system, to be sponsored by the Kentucky department, and the feasibility of establishing a weigh-out system to replace the weigh-in system now prevalent over the State.

Under its livestock conservation program, the department placed considerable emphasis on work with students at the high school and college levels. Specialists made appearances before about 30 such groups during the year to discuss the problem of livestock conservation and to demonstrate proper methods of handling livestock and equipment needed to prevent injury to livestock in the marketing process. Specialists also appeared on several radio and television programs to present this material.

Wool. The weekly wool market report, prepared and disseminated to about 1,500 producers and other interested persons by the department, was credited with improving and stabilizing wool prices at country points.

Honey. The Kentucky department added an experienced apiarist to its staff in 1955 to inaugurate a marketing program for the benefit of beekeepers in the State. During 1955-56, this specialist made 141 farm visits, held 27 meetings, and staged 8 exhibits at county fairs, to demonstrate improved beekeeping equipment and proper methods of preparing honey for market.

Sorghum syrup. Continued assistance was provided processors of sorghum syrup in improving quality, packaging, labeling, and merchandising. At the suggestion of specialists, the following improvements were adopted by one or more processors during the year:

(1) Adjusted operations so as to have the product on the market at an earlier date.

(Kentucky)

(2) Changed procedures in labeling to prevent loss of labels during handling and storage.

(3) Developed and provided point-of-sale material for retailer use.

(4) Maintained a year-round supply of the product to enable retailers to keep shelves stocked at all times.

By adopting these improvements, one processor was able to move through retail channels an additional 10,000 to 15,000 gallons of sorghum which he otherwise would have had to sell in low-priced surplus outlets.

Providing basic agricultural data--(RM:c-4550-2)

The Kentucky Crop and Livestock Reporting Service published during the year the results of two surveys designed to provide producers and marketing agencies with basic production and marketing data.

Grain. The results of a grain survey made in 1954-55 were reported in the publication entitled "Kentucky Grain Production and Storage Survey 1954-55." According to this survey, farm storage problems exist on individual farms, but the State as a whole appears to be fairly well supplied with cribs and bins. Off-farm storage also seemed to be adequate to meet most normal situations, as far as space was concerned. However, numerous improvements are needed in existing facilities to aid the flow and handling of grain during rush periods at harvest time.

Honey. A survey of honey production and marketing was conducted and the findings were published in "Kentucky 1955 Honey Production and Marketing Survey." The results of this survey are to be used in developing a marketing service program for the beekeeping industry of Kentucky.

LOUISIANA

Improving distribution and utilization--(RM;c-2550-1)

Dairy products. During the year, specialists assisted the dairy industry, through preparation of statistical summaries of prices paid by plants to producers, on the current demand and supply situation and other milk marketing conditions. These summaries were mailed each month to 5,500 producers, plant operators, and others. The program has helped in maintaining the demand and supply balance for milk between deficit and surplus areas of the State, as evidenced by the fact that daily production per producer is increasing during the normal short production period and decreasing in the normal flush production period. Specialists working on this program assisted producers in locating causes of low quality in milk, and also provided assistance to dairy plants in improving plant efficiency and in reducing the cost of deliveries.

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(Louisiana)

Fruits and vegetables. About 3,000 growers, following the recommendations of marketing specialists in grading, packing, and handling strawberries during the 1956 marketing season, were able to market crops double the size of the previous season at satisfactory prices. For example, in 1956 Louisiana growers marketed a fresh crop of 886,000 pint crates with a gross value of about $5,000,000, compared with 1955 fresh shipments of about 403,000 pint crates having a gross value of only $2,600,000. These marketing results were realized despite larger strawberry supplies in competing areas. Specialists conducted demonstrations showing growers how to pick berries at the proper stage of maturity to reach consumers in an attractive condition and how to pack and ship them to create buyer demand. Producers were encouraged to use official grades in packing and shipping the berries. A marketing specialist was added to the staff to provide this service effectively under the expanded program. This work has been conducted with the close cooperation of private and cooperative shipping associations, the Extension Service, strawberry growers, and others interested in the marketing of Louisiana strawberries.

Improving marketing methods and expanding outlets (poultry and eggs)--(RM:c-2550-53)

The program of demonstrating the most up-to-date developments in handling, processing, merchandising, and retailing techniques for poultry and eggs was continued. The use of official grades was promoted in connection with the voluntary "Grade Label Program" in the marketing of Louisiana poultry and eggs. Activities for this fiscal period also included providing assistance to personnel of 4 poultry processing plants and 6 egg grading stations on grading and handling practices. Nearly 1,000 visits were made to retail stores and wholesale establishments within the State to explain the poultry and egg quality program. In cooperation with the Extension Service, specialists assisted in presenting egg exhibits at fairs and other events, conducted radio and television programs, and participated in 12 meetings attended by some 300 producers and dealers, to demonstrate grading and candling procedures.

Advisory assistance was provided in the construction of a new poultry processing facility. This work included the furnishing of detailed drawings on plant layout and types of operating equipment to be used. The plant now handles 25,000 to 30,000 graded birds weekly.

Improving the packaging, handling, and transportation of farm products--(RM:c-3550-2)

The principal activity conducted under this project during the year was the work on transportation problems affecting strawberry growers. An attempt was made to find solutions that would: (1) Improve slow transportation service to New York and other eastern markets, (2) eliminate erratic placement of cars by the railroad, (3) provide timely information concerning the number of cars available for the next day's loadings and location of railroad cars en route to market, and (4) obtain modern express refrigerator cars and speed up precooling of cars. These transportation problems were adversely affecting

the marketing of the Louisiana strawberry crop. As a result of this program, some progress was made in improving the transportation situation. For example, the railroads and the Express Agency furnished modern cars during the entire strawberry shipping season and assigned special agricultural agents to the strawberry district during the marketing period to assist in overcoming transportation bottlenecks and to improve the service. In addition, a meeting was held during November 1956 with officials of the Express Agency, Illinois Central Railroad, Pennsylvania Railroad, New York Central Railroad, Interstate Commerce Commission, Extension Service, U. S. Department of Agriculture, and shippers and producers to develop a mutually satisfactory transportation program for the 1957 marketing season.

The Louisiana Department of Agriculture, at the request of sugar cane producers and processors, fertilizer manufacturers, and others, furnished testimony and exhibits at hearings held by the Louisiana Public Service Commission with respect to a proposed freight rate increase on Louisiana agricultural commodities. The outcome of this case is still pending.

At the request of pulpwood producers, a study was made of rail rates for pulpwood within Louisiana. As far as could be ascertained by this study, there is not enough differential in rail rates to cause the differences in prices paid to pulpwood producers in the different areas of the State.

Louisiana cooperated with 9 other Southeastern States in a case involving freight rates for grain. This information was used in making a joint complaint to the Interstate Commerce Commission on proposed freight rate increases which would affect grain moving by rail to and within the Southeastern States.

Furnishing technical assistance to cotton gins in maintaining fiber quality--(RM:c-3550-25)

About 370 cotton gins were assisted on varied operating problems connected with installing and adjusting gin machinery to improve the efficiency of plant operations and to obtain the most desirable grades of cotton for industrial uses. Specialists made 140 calls to assist in the operation and installation of gin equipment. The reduction of "rough prep" or damaged cotton effected through this service is estimated to be currently saving Louisiana farmers thousands of dollars annually. The percentage of "rough prep" cotton now averages less than 2 percent as compared to about 12 percent prior to this program. Close cooperation in this work was maintained with local USDA cotton classing offices, the USDA Cotton Ginning Research Laboratory at Stoneville, Miss., the Extension Service, ginning associations, gin equipment manufacturers, and cottonseed oil millers. Specialists prepared a list indicating the locations and the names of the owners or managers of Louisiana cotton gins in operation during the 1956 fiscal year. This pamphlet was distributed to cotton gin organizations and manufacturers, cotton oil mills, government agencies, and others.

(Louisiana)

Assembling and disseminating special market information at the local area, and national levels--(RM:c-4550-11)

The department compiled and released information relating to the quantities, types, and locations of 34 different farm crops available for sale. Each month 300 of these mimeographed reports were placed in market places, and 250 copies were sent to a mailing list of wholesalers, dealers, truckers, buyers, and shippers of agricultural products in Louisiana and nearby States. Dissemination of this information was broadened during the year to include the wholesale markets in San Antonio and Houston, Tex., where a large quantity of Louisiana products is sold. The increased use of these services indicates that this work is effectively assisting producers in finding market outlets for their products.

Assembling and disseminating special market information at the local or area level (pecans)--(RM:c-4550-13)

Pecan market information was obtained from 11 principal marketing points within the State. This local information on pecan trading was supplemented by information obtained from other important pecan-producing States and disseminated 3 times a week in mimeographed reports and press and radio releases. This project provides producers, dealers, shellers, and others with information that has assisted in the development of a more orderly marketing program for the Louisiana pecan crop, having an annual average production of about 13,000,000 pounds with a farm value of more than 2.5 million dollars. This service is reported to have been a definite factor in stabilizing the price of this important Louisiana crop. This project was completed on June 30, 1956.

Assembling and disseminating special market information at the local area, and national levels (timber products)--(RM:c-4550-49)

Information was compiled on an area basis on stumpage prices, f.o.b. car and f.o.b. mill prices, paid producers and dealers for timber products throughout the State. This information was released quarterly in the timber statistical report and also disseminated via radio and press releases. The importance of this project is indicated by the fact that more than 50 percent of the land area of Louisiana is in commercial forests, and that there are approximately 110,000 small owners of this timberland. The timber reports released under this project have been useful in providing producers and buyers with a more equitable basis for determining prices and values for timber at the stumpage and delivered-mill level. As a result of these reports, the existing wide range in prices paid producers for stumpage timber has been reduced, and this service has created additional interest in quality timber production.

MAINE

Improving marketing methods and expanding market outlets--(RM:c-2550-13)

Potatoes. The State department continued to cooperate with the Maine Potato Commission in a program that resulted in a highly successful marketing season. Profiting by experience gained in the two previous seasons, department marketing specialists, from October through May, called on 98 terminal markets in 20 States with sample consumer packs of Maine potatoes--Maine Mediums (U. S. Extra No. 1, 2¼" - 3¼")--washed and packed in attractive polyethylene bags. Particular emphasis was placed on the promotion of the Maine Russet Burbank variety and on the expansion of market outlets in the South and Midwest. These visits stimulated an early-season demand for Maine potatoes from buyers who normally did not request them until much later. The emphasis placed on Maine Russets not only resulted in improved acceptance but actually provided many buyers with their first information on this variety as grown in Maine. Several very successful in-store promotions emphasizing Maine trade-marks also were conducted during the season in 4 States, Virginia, North Carolina, Ohio, and Michigan. Through these promotions, the marketing specialists were able to assist retail stores in improving their display arrangements and rotation and handling methods. Shipments of the Maine Medium grade up to February 1 were three times the total shipments of this grade during the previous season.

To stimulate the use of potatoes through hotel, restaurant, and other food service establishments, a program of publicizing the varieties and packs of potatoes was undertaken in cooperation with the Maine State Restaurant Association, the Maine State Grocers' Association, and the Maine Potato Commission. Speeches were made before service club groups, 17 radio and television programs featured potatoes in some manner to an audience of 185,000 in 4 States and Canada, newspapers carried stories and editorials on the promotion campaign, and point-of-sale materials received wide distribution. The free radio and television time was valued at $5,000. Many hotels and restaurants reported that this program definitely improved potato consumption.

In cooperation with the Maine Potato Administrative Committee, the Maine Agricultural Experiment Station, and the Federal-State Inspection Service, valuable information was obtained during the year from Federal-State inspection certificates on shipments of Maine potatoes. Although the data for the 1955-56 season are incomplete, the following comparisons, as of February 1 for the 1955-56 season and total figures for the previous season, may be pointed out:

	Unit	1954-55 season total	1955-56 total to 2/1/56
Volume washed	Million cwt.	1.3	1.2
Percentage of shipments that were Maine Mediums	Percent	1.0	4.0
Volume of "State of Maine Trade-mark" grades shipped	Thousand cwt.	721	856

(Maine)

Many grower and shipper groups already have requested copies of any releases that may be made under this program.

A market test was undertaken of a new potato product known as "Potato Flakes" which, if favorable, will help to stabilize the potato market by diverting part of the production from the fresh market. The department assisted in this work by designing a package label, finding a suitable package, locating a packager, arranging for suitable storage, and setting up displays and service areas for in-store demonstrations. Other cooperators in the study were the Maine Potato Commission, the Eastern Utilization Research Branch and the Agricultural Marketing Service of the U.S.D.A., and the Maine Agricultural Experiment Station.

The department engaged in various other activities under this program. It again assisted the Maine Potato Commission in designing and supervising the construction of potato exhibits at food shows, conventions, and meetings, and provided trained personnel to staff these exhibits. It again supplied the services of a trained inspector to the Maine Agricultural Experiment Station to supervise the grading and packaging of potatoes in a market test to measure the acceptance of U. S. Fancy grade versus Maine Medium grade. It supervised the distribution of about 15,000 kits and 10,000 individual pieces of point-of-sale material, provided by the Maine Potato Commission to wholesale handlers and retail stores, and furnished speakers for meetings of organizations interested in setting up similar promotional programs for other commodities.

Poultry and eggs. The department continued its long-range program of service work with producers, wholesalers, retailers, and restaurant and hotel operators in order to bring them up to date on the latest and correct methods of sanitizing, candling, handling, packaging, and caring for eggs. Producers and receivers were instructed in efficient methods of sanitizing. Candling and grading demonstrations were given in retail stores, expositions, trade shows, television programs, and meetings of producer and grocer organizations. Restaurant and hotel operators were informed of the correct meaning and best uses of each grade and size, the best time of the year to purchase certain sizes, and the proper care of eggs. As a result of this program, consumers are recognizing the standard of quality of eggs packaged under the State trade-mark and do not hesitate to pay a premium for them. The production of Maine eggs and the demand for them from within and out of the State have increased considerably.

Schools for wholesalers, retailers, and restaurant and hotel operators again were conducted on proper methods of buying, handling, cutting, packaging, displaying, pricing, and caring for various types and cuts of poultry. Since this program was initiated, the volume and quality of Maine poultry sold in retail outlets has increased greatly. Wholesalers now are able to obtain cut-up poultry in packaged form or in parts directly from the processing plants in the State, and they can secure turkeys in eviscerated form at all seasons of the year. Several large retail outlets reported substantial increases in their sales of cut-up poultry after their employees had attended the schools.

(Maine)

Hotels and restaurants featured poultry on their menus oftener and in many different forms. The results from this program have been so favorable that the Maine State Grocers' Association, the Maine State Restaurant Association, and the poultry processors have requested that the schools be repeated.

To have Maine ready-to-cook poultry properly graded and identified under the State of Maine trade-mark, grades and standards of quality were established during the year, and some processing plants were licensed to use the trade-mark on their products. Through cutting and packaging demonstrations on radio and television, consumers became acquainted with this product and created a large demand for it. Considerable interest was shown by the turkey industry in this project, and many processing plants which heretofore had been using their own trade-mark now are considering coming under this program.

Many favorable reports have been received concerning the demonstrations given by the Maine Department of Agriculture on proper methods of cutting and preparing broilers for the barbecue pit. A total of 18 demonstrations were given, at which various organizations or groups were instructed in the art of barbecuing. The necessary equipment was loaned to some groups, and a bulletin containing instructions and recipes was distributed to the people in attendance. A barbecue school for directors of summer camps for boys and girls from all over the country was held. Free time given on radio and television programs for barbecue demonstrations was estimated at $1,500. The department again cooperated with the Maine Poultry Improvement Association in sponsoring the Maine Broiler Festival, but it had to be cancelled because of unfavorable weather.

Assistance was given to the New England Crop Reporting Service in collecting information for its weekly report showing the number of eggs set in Maine commercial hatcheries; the number of chicks hatched; and the number of broiler chicks placed in Maine, Connecticut, Massachusetts, New Hampshire Maryland, Virginia, Georgia, and countries in South America. The first annual January Egg Month breakfast was arranged, at which the Governor was the main speaker. It was very well attended by poultrymen from all parts of the State. In addition, the department, in cooperation with the Maine Poultry Improvement Association, the Maine Agricultural Experiment Station, the Extension Service, the Maine Restaurant Association, the Maine Hotel Association, and wholesale and retail outlets conducted a program to promote and improve the distribution and merchandising of Maine poultry and poultry products.

Red meats. At the request of the Maine Grocers' Association, 4 meat cutting and merchandising schools, with an attendance of 500, were conducted in various sections of the State for wholesalers, retailers, and hotel and restaurant operators to familiarize them with up-to-date methods of buying, cutting, handling, merchandising, and pricing red meat and meat cuts. Previews of these schools were given on television to an audience of 185,000 so that consumers would know what to look for in their grocers' display cases. This program, conducted in cooperation with the National Livestock and Meat Board, was immediately effective in bringing about more attractively packaged cuts

of meats and in featuring hard-to-sell cuts as sales leaders. A similar program will be given on an expanded basis, to reach a larger number of grocers.

Apples. During the year, work was carried on in cooperation with the Maine Agricultural Experiment Station to determine the amount of bruising of apples that occurs in transit. To help reduce this bruising and present an attractive product to the consumer, 3 new types of consumer packs and 2 master containers were developed. Test shipments were made to 6 supermarkets for a 6-week period. Some reduction in bruising and an increase in sales were credited to this work. The department also assisted the Maine Apple Committee and the Maine State Pomological Society in developing their promotional programs, in designing exhibits, and in other matters.

Dry beans. A new bean dryer was developed, and soon will be tested at plants throughout the State. Work was continued on the improvement of bean seed quality. The department also assisted the bean industry in developing a bean placemat for use in hotels and restaurants.

Maple syrup. At the request of the Maine Maple Syrup Producers' Association, the department assisted in a program to get more people in Maine to recognize the high quality of maple syrup produced in the State. Guest appearances were made on radio and television programs, reaching an audience of 70,000. The commercial value of the free time allotted was $3,000. During harvest, many articles and pictures were sent to newspapers throughout the State. As a result, the 31 members of the association sold all of the year's production, which was marketed almost entirely in gallon and half-gallon containers. Producers are being encouraged to sell their product in smaller units in order to reach a larger number of buyers and to obtain a higher return.

MARYLAND

Improving the quality and merchandising of Maryland canned fruits and vegetables--(RM:c-2550-3)

Food processing provides an important market for a major part of vegetables grown in Maryland. The small and medium-size canners and freezers in this area face many problems in producing a quality product at low cost. Because of their smallness, they find it difficult to afford the technical personnel and production facilities necessary for adequate quality control and low-cost production. Approximately 135 food processors in the State can and freeze a variety of products, including vegetables, fruits, seafood, and specialty items. These processors are important in providing Maryland farmers a market for the production from more than 70,000 acres, or about 72 percent of the State's 1955 vegetable acreage. The value of the vegetable production from this acreage in 1955 was approximately $7,286,000.

(Maryland)

Individual assistance was provided to approximately 65 food processors during the year in improving their operating efficiency and the quality of their products. Specific recommendations for improvement were based on surveys of each company's operations. The factors surveyed included quality control, general sanitation, quality of raw products used, quality of finished products, type and efficiency of labor used, and physical condition and maintenance of production facilities. The following are typical of the recommendations made:

1. That new or improved methods of grading and pregrading the raw products be adopted to aid in more timely harvesting and handling of raw products.

2. That improved methods of quality control, such as better sampling methods, be used, and that the use of statistical quality control methods be explored.

3. That basic cost data in field and factory operations be obtained and used in determining where improvements in operations can be effected.

Processors were provided with information on acreages of canning crops, costs, yields, pack totals, carryovers, and other statistical data.

Processors were aided in the development of a group marketing plan under a single label. A special session devoted to "Group Marketing Under One Label" was held at the annual convention of the Tri-State Packers. The purpose was to bring to canners and freezers information and opinions from the retail and wholesale trade on this subject, and to permit representatives of successful one-label marketing organizations to describe their organizations. After this session, questionnaires were sent to food processors in the State to learn which were interested and wanted to investigate further the possibilities of group marketing. A substantial number indicated they were definitely interested and were willing to attend a meeting to discuss plans.

Improving marketing and processing and expanding outlets (fruits and vegetables) (RM:c-2550-38)

Sweet corn. In cooperation with the University of Maryland Horticultural Department and the Extension Service, the Maryland Department of Markets assisted producers of fresh sweet corn in improving the quality of their product and their methods of handling, to help insure quality maintenance through to the consumer. Specialists worked with producers during the harvesting and marketing of the corn, to help on proper handling and marketing methods. Producers then were aided in securing outlets. Wholesalers and retailers were instructed in methods of displaying corn properly under refrigeration to maintain its quality until it reached the consumer. While these activities were under way, consumers were being advised by press and radio of the proper care of sweet corn to maintain quality until consumed. It is estimated that the corn produced and marketed under this program netted

the 6 participating producers an additional 40 cents a bag of 5 dozen ears, representing an increased net return to them of nearly $50,000.

Potatoes. Growers of Irish potatoes were helped in considering regulatory requirements and specifications needed to obtain better seed potatoes for the 1957 season. Several meetings were held with industry representatives to develop the final form of a State potato seed law.

Sweet potatoes. In cooperation with other departments of the University of Maryland, the Department of Markets helped to develop a new 4-H Club sweet potato program in which several counties are participating. To promote orderly marketing and develop a quality product that will have good sales value, specialists of the department prepared a grading chart and visual aids for the judges to use in scoring baskets exhibited by each club member. Prizes will be awarded to those having the best 10 exhibits.

Brochures describing the best growing, harvesting, and marketing practices were given to each club member for use in carrying out his project. Upon final inspection and grading of the exhibits, the club members were given demonstrations of the grades and grading, covering requirements as to shape, smoothness, and uniformity, and illustrating the more common defects and injuries responsible for inferior quality.

Tomatoes. Maryland growers are shifting to the production of Italian-type tomatoes for processing. This type of tomato is very thick-walled, meaty, and firm. The internal flesh is slow to attain full color, and for this reason harvest needs to be delayed somewhat to secure a desirable raw product. Specialists of the department aided growers and processors in overcoming the harvesting and processing problems associated with this shift. For example, assistance was given canners in establishing an entirely new grade for this type of tomato, in reducing trim waste, in eliminating loose peel, and in securing a more uniform color of whole tomatoes required for the premium-priced fancy pack.

General. Specialists of the department continued to help the Baltimore Market Authority, which was established by the 1955 General Assembly, in its efforts to build a new terminal market. The department located a site for the market, and the authority has almost completed arrangements to obtain the site.

The department continued its weekly 15-minute radio program, entitled "Your Neighborhood Shopper," over a local radio station. The purpose of this program is to stimulate consumer demand for plentiful foods in order to increase sales, expediting the distribution of farm products during periods of peak supplies. Selection of a topic for discussion is based on the normal seasonal availability of fruits and vegetables on local markets, with special emphasis on locally produced commodities.

(Maryland)

This program includes a brief resume of the history and trends in per capita consumption of the item under discussion. As special features on the program, recommendations are given with respect to the selection, home care, and use of various foods, and comparisons are given on costs and food values of both fresh and processed items. One of the features of main interest on this program is called "Best Buys." This segment of the program deals with items that are especially low-priced in the large supermarkets and chainstores for promotional purposes during weekend sales. Suggested menus for economical weekend meals are given, based on the most economical buys for that week. Several of the large grocery chains have been cooperating in providing advance information about their weekend specials, making this section of the program possible.

Charts depicting the "Normal Availability of Fresh Fruits in Local Markets" and the "Normal Availability of Fresh Vegetables in Local Markets" were prepared and about 2,000 copies distributed to consumers. These charts indicate supply conditions of the various home-grown and shipped-in commodities by months, whether average, above average, or peak supplies. This information is a direct help to the housewife, telling her when she may buy most freely at the most economical prices during the height of the season. It helps the farmer by accelerating the movement of crops when they are most abundant.

Improving handling methods and facilities (grain and hay)--(RM:c-3550-24)

In Maryland, the production of corn and soybeans has been increasing while the production of wheat has been declining. Since grain dealers' operations have been geared to handle wheat, this shift in production has created problems in handling, receiving, grading, and loading corn and soybeans.

Work under this project was carried out along the same general lines as in previous years. Growers and handlers were aided in improving facilities and storing, grading, and marketing methods. This work on the eastern shore of Maryland is done in cooperation with the Eastern Shore Grain Dealers' Association.

Corn. The work during the year did much to clear up misunderstanding between producers and grain dealers about moisture determinations for corn. The main causes of this problem appear to be that producers do not realize the importance of having representative samples and lack knowledge of the procedures for testing grain. To improve the accuracy of moisture testing in the State and to acquaint producers and dealers with proper equipment and techniques, several countywide meetings were held, in cooperation with county agents, to describe and demonstrate how moisture testing should be done for accurate results. Because producers, in requesting dealers to make moisture tests of their corn, do not provide the dealers with representative samples, the proper procedures for drawing representative samples were explained and demonstrated at the meetings. Producers participated in the meetings by drawing samples and making moisture determinations.

(Maryland)

A calibration service for one type of moisture meter was continued for grain dealers to improve the accuracy of moisture testing. In cooperation with county agents, test locations were set up in 6 representative cities and towns in the State, and 56 meters of one type were calibrated. Those found to be inaccurate and in need of repair were returned to the factory for adjustment before the harvest season. Arrangements also were made to check a second type of meter for accuracy. Samples were assembled for distribution to grain dealers who have this type of machine, and tests were run and checks made before the corn and soybean harvest season. The service of calibrating moisture meters has proved popular. Dealers are appreciative of the service, and farm organization leaders have endorsed the program and have recommended that it be continued.

Soybeans. In soybean marketing, the major activities of the department during the year were to encourage greater use of grade standards in buying and selling, to assist producers and dealers in recognizing the "purple mottle" condition, and to improve quality through the adoption of better harvesting and cleaning methods. As a result of this program, practically all dealers are now buying soybeans on a grade basis, and there has been a sharp upward trend in the number of cars shipped by dealers on which inspection was obtained. In 1952, when grading services were first provided, only 200 cars of soybeans were inspected; in 1955, the number reached 1,456 cars.

The "purple mottle" condition in soybeans proved to be a much bigger problem in 1955 than had been anticipated. Soybeans found to be affected with this condition were generally discounted by 5 cents or more a bushel. Since many of the beans marketed showed a purple stain, frequent decisions had to be made and agreements reached by buyers and sellers as to whether or not specific lots were sufficiently affected to be classed as "purple mottle." Such determinations are difficult, because they are made on the basis of visual comparisons of beans with prepared samples, rather than on the basis of the percentage of stained beans. In assisting producers and dealers with this problem, the department conducted meetings at which the samples of "purple mottle," "borderline purple mottle," and "borderline but not purple mottle" beans were demonstrated, and participants were trained in their use. Samples of soybeans of these classifications were prepared and placed at key locations in the producing areas for use by interested parties. Even with this assistance, many producers and dealers still are uncertain about their ability to make accurate determinations of this condition, and further work appears to be needed.

Other service work relating to soybeans included efforts to improve the loading of cars and to induce dealers to change their selling methods so as to protect them in cases where cars were held on track at terminals for unusually long periods, with resulting changes in grade. Complaints were received from the terminal markets that some dealers were overloading cars. This problem was taken up with the dealers, with the result that greater care was taken in loading. Dealers had serious difficulty in getting cars unloaded in the terminals. In many instances, beans sat on track in the terminal from

6 to 12 weeks before being unloaded. In numerous cases, there were grade changes. Investigations revealed that dealers had sold these beans on a delivered basis. Recommendations were made to the dealers that, since official inspection was available, the beans be sold on a shipping-point basis. Indications are that dealers and buyers are adopting this method.

Wheat. Assistance to producers and dealers in the marketing of wheat was continued during the year. For the second consecutive year, wheat was harvested and marketed without facing a storage problem. Close liaison was maintained with the Baltimore Chamber of Commerce and the Baltimore terminal elevators throughout the wheat marketing season to help prevent storage bottlenecks. The 1,250,000 bushels of new storage capacity which the department was instrumental in having constructed in Baltimore several years ago has done much to alleviate the wheat storage problem. Other activities to improve wheat marketing included supplying to all dealers in the State charts showing official grade standards and material describing proper methods for handling wheat.

As in past years, training schools were conducted for grain dealer employees in grading methods for all the principal grains produced in Maryland.

Providing new basic information--(RM:c-4550-30)

Livestock. A special cattle survey was completed and the results were reported in a publication entitled "Maryland Cattle--1955." An initial distribution of about 2,500 copies of this publication was made to producers, marketing agencies, and others. The data obtained in this survey, which were analyzed on the basis of both State totals and major farming regions, provide answers to a number of questions important to the development of the cattle industry in the State, such as the relative importance of the dairy and beef enterprises, trends in the numbers of different breeds of dairy and beef cattle, the number of potential feeders, the importance of crossbred cattle, and the relative importance of different marketing channels used by Maryland dairymen and beef producers. The report provides benchmark data against which to measure future trends.

Apples and peaches. To provide up-to-date information on trends in apple and peach production and on marketing outlets and methods, the Crop Reporting Service made a survey of those industries during the year. Significant changes have been taking place in the production and marketing of these fruits, and many growers have expressed the need for current information so as to be able to plan orchard and marketing operations more intelligently. The results of the survey are to be published soon.

Improving methods of grading and marketing (livestock and wool)--(RM:c-4550-29)

Activities under this project include demonstrating the use which producers can make of official livestock grades, determining when and where to sell, improving market outlets for livestock and wool through special sales

and pools, assisting producers in improving methods of preparing wool for market, encouraging the marketing of meat-type hogs, preventing losses from bruising and rough handling, and expanding outlets for meat.

Cattle and calves. The Maryland department for several years has sponsored special sales of feeder calves and feeder cattle as a means of improving outlets and of demonstrating methods of grading livestock in accordance with official standards. Sales at the annual feeder calf sale in the fall of 1955 amounted to nearly 900 head. It is estimated that producers received an average of about 2½ cents a pound, or nearly $11 a head, more than they would have received through other sales outlets. The 726 yearlings sold through the 1956 spring feeder cattle sale returned producers an estimated premium of 4 cents a pound, or nearly $19 a head, over the usual outlets. On the basis of these estimated increases in prices, these two sales resulted in a gain of nearly $40,000 to the producers selling through them.

Hogs. Of the hogs received at Maryland packing plants from Maryland sources, relatively few are of the desirable meat type. In view of this situation, the department, in cooperation with the Maryland Swine Producers, Inc., and other agencies and industry groups, continued to emphasize the importance of marketing more meat-type hogs. At 120 grading demonstrations conducted over the State, specialists showed producers how live hogs should be graded in accordance with USDA grade standards. At three of these demonstrations, the animals were slaughtered and the carcasses graded to give the producers a visual comparison of the live and carcass grades. Visual aids, such as slides of meat-type and lard-type hogs, were derived as a byproduct of these demonstrations and used in presenting the meat-type hog story at meetings and events over the State. The department also participated in 6 regional and 3 Statewide market hog shows. At these shows, producers participated with the official judge in the judging of market hogs. This training is expected to help them in selecting breeding stock having the desired meat-type characteristics.

The success of the feeder calf and cattle sales had prompted producers of feeder pigs to consider plans for a feeder pig sale. A survey made by the department among feeders in nearby States indicates that there is a potential market for a minimum of 60,000 feeder pigs each year. After presentation of these results at a series of meetings, the hog industry decided to organize a feeder pig sale, with the assistance of the department.

Wool. The wool pool marketing plan, which has proved successful in recent years, was again developed for the 1956 clip. Under the 1956 program, pickup points were designated at 5 convenient locations where the wool was assembled, weighed, graded, and loaded for shipment. Before the shearing season, the department held 5 area meetings at which were discussed such subjects as the proper time to shear, preparation of the fleece for market, and grading of wool according to USDA grades. Producers, county agents, and teachers of vocational agriculture took an active part in these meetings. Nearly 90,000 pounds of wool were handled under the program. It is estimated that

producers received an average of about 13 cents more a pound than they would have received under the system in effect before this project was started.

General. The livestock conservation program of the department stresses careful handling of livestock from the farm to the packing plant. In meetings and at livestock sales and shows over the State, the economic losses from bruised, crippled, and dead livestock due to rough handling were pointed out, and proper equipment and handling methods to prevent these losses were demonstrated. Scale models of loading ramps, sorting pens, and other handling equipment, as well as other visual aids such as slides, films, and charts, were used in the demonstrations. Much progress has been made in the safer handling of livestock. Hidden surface bruises on slaughtered hogs have declined to about 3 percent, compared to some 7 percent before this program started. Crippling of cattle in truck shipments has been reduced three-fourths since 1941. The percentage of crippled hogs in truck arrivals has declined 50 percent in the last 6 years.

The department promoted greater consumption of meats in plentiful supply, using the same methods as for fruits and vegetables (RM:c-2550-38).

MASSACHUSETTS

Obtaining new basic data (vegetables)--(RM:c-4550-1)

The report "Massachusetts Vegetable Crops," covering 46 crops, was issued again this year. Through it, growers received, before the planting season, information on acreage intentions. The report also contained comparative data for 1954 and 1955 on planted and harvested acreages, yield per acre, production, average prices received by growers, and total farm value of production for each of the 46 crops.

During the year, estimates of intentions of growers were revised on the basis of the 1954 census data. This work included revisions of acreage, yield, production, prices, and value of production of the 46 vegetables. Considerable research was carried on to determine the most effective way of coordinating available wholesale market quotations into week-to-week indications of average prices received by growers. Price data were collected also directly from growers. Because neither wholesale prices nor prices to growers were available at all times, the two sources were used in devising a consistent and continuous index of prices.

This program provides the only comprehensive source of data on the size, distribution, and trend of the vegetable industry in Massachusetts, which is going through an important period of change, with fundamental adjustments in marketing methods and facilities. Therefore, the project material is being used constantly by growers, trade people, State and city groups, and research workers in this field.

(Massachusetts)

Obtaining basic data (cranberries)--(RM:c-4550-50)

This project was started during the year, in cooperation with the Cranberry Experiment Station of the University of Massachusetts, to obtain up-to-date information on cultural practices and marketing methods used in the production and marketing of cranberries. About two-thirds of all cranberries produced in the United States are grown on 13,000 acres in Massachusetts by 1,200 growers. The income from this crop is a significant sum; however, growers' profits have been reduced materially in recent years, and problems relating to waste and spoilage, packaging, and handling are commanding considerable attention. After a series of consultations among interested groups as to what types of information would be desirable and useful, questionnaires were prepared, and 15 enumerators gathered the needed data. During the coming year, these data will be analyzed and summarized, and a report on the findings will be published.

MICHIGAN

Developing methods of certifying nursery stock--(RM:c-2550-20)

The program of developing disease-free certified nursery stock for fruits grown in Michigan was continued. Establishing a source of disease-free propagating stock is a step in improving the marketability of nursery stock, since virus infections in trees and plants take a heavy annual toll in reduced yields and result in low quality of fruit and losses of trees and plants. Close cooperation in this work has been maintained with the Extension Service, the Agricultural Experiment Station, and nurserymen.

Activities under this project during the year included the distribution of 135,000 Montmorency and 35,000 sweet cherry virus-free buds to nurserymen, to provide a source of better quality and high-yielding fruit trees for producers in Michigan and other States. Work is under way to make available virus-free nursery stock for other varieties of cherries. During the year, 1,200,000 peach trees were examined for virus contamination, to eliminate infected trees in the vicinity of nursery orchards. These control measures are necessary to prevent the introduction of diseases into peach nurseries via budwood. Last spring, work was initiated on the virus-free certification of strawberry plants, which resulted in the distribution of 38,000 virus-free clones of Robinson, Marshall, and Catskill varieties to 6 growers who agreed to comply with the requirements of certification. Michigan nurserymen supply most of strawberry plants for the State and about 75 percent of the requirements in other areas within a 600-mile radius.

Development of virus-free nursery stock for apples, plums, and other fruit will be included in the program as soon as circumstances permit. This program is important to growers in view of the rising production costs and market demands for top-quality fruit. This work is also beneficial to nurserymen because Michigan is a leading supplier of nursery stock for other States.

(Michigan)

State or industry funds will be required for the support of this work after the techniques of developing a source of virus-free stock for each variety of fruit have been developed.

Improving grading, handling, and packing--(RM:c-2550-41)

Fruits and vegetables. The program to assist growers in improving the quality and uniformity of packs of fruits and vegetables was continued at the Benton Harbor market. Specialists assisted growers in making corrections to comply with grade and labeling requirements of State regulations and proper packaging methods for loads of fruits and vegetables sold on the Benton Harbor market. The effectiveness of this program is indicated in that, during the 1956 marketing season, only 2 percent of the growers' loads delivered to the market had to be returned to the packinghouse for regrading and repacking. In contrast, a survey at other markets in the State where this service has not been provided indicated that percentage of loads requiring regrading and repacking ran as high as 35 percent. The Michigan department has been requested by growers and handlers to provide assistance, similar to that at the Benton Harbor market, on grading and packing produce at other farmer markets in Michigan.

Improved methods of grading and handling produce, particularly peaches, apples, tomatoes, potatoes, grapes, slicing cucumbers, cantaloups, and pears, were demonstrated at 31 meetings held over the State, with producers, shippers, wholesalers, institutional users, and others attending. In addition, exhibits demonstrating grading and labeling requirements were maintained at the leading agricultural fairs in the State. Several radio talks were given explaining the grading and labeling requirements for Michigan agricultural products.

Poultry and eggs. Specialists made a survey of the quality and condition of poultry and eggs offered for sale in 78 retail stores in 27 cities. The results of this work indicated that there is much room for improvement in the grading and handling of eggs produced in Michigan, as well as eggs brought in from other States. For example, 102 out of 105 lots of eggs checked were out of grade in some respect. The survey also showed that most of the poultry being sold was not graded and had no identification with respect to wholesomeness.

Poultry and egg schools were held throughout the State on grading procedures and requirements, and exhibits demonstrating grading and labeling requirements were maintained at fairs.

Providing special market information (fruits and vegetables)--(RM:c-4550-15)

Onions. The series of special onion releases was continued to provide growers with timely information on the progress and condition of the Texas onion crop. This information is essential in assisting Michigan growers to plan the marketing of onions in storage. Whether the Michigan grower has 5 months or 6 to market these storage onions depends upon the time that onions

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from Texas will be harvested and the size of the Texas crop. The weekly releases on the Texas crop are sent to about 500 growers and dealers in the State.

Apples. The Michigan department continued the August production estimates of principal varieties of apples, to provide the Michigan fruit industry with timely information needed for efficient marketing of the apple crop. Before this service began, the lack of timely and reliable information on apple production in many years had resulted in substantial losses to producers in the marketing of apples.

Fruit trees. A mail survey was conducted as a basis for estimating the total number of bearing fruit trees by kind. The information obtained through this survey is useful to the fruit industry in forecasting trends in production and in planning long-term marketing policies.

A peach tree census by varieties and age groups was initiated during the year to provide information on number and varieties of new plantings. In 1950, many peach trees were severely damaged by low temperatures. Current information on the extent of replantings and shifts in varieties is essential to intelligent planning of marketing of the Michigan peach crop.

A summary of the cherry tree census data by age groups was released in a report which showed the percentages of trees by age groups for principal counties and production areas. Estimates of cherry trees by age groups were projected to 1960 for the State and the 3 main producing areas.

Developing an expanded market news service for agricultural products--(RM:c-4550-56)

Work on this project was started in July 1956 to obtain information at local marketing points on prices of livestock, poultry and eggs, and other Michigan farm products. This work was so recently begun that no report on activities can be made for the year.

MINNESOTA

Improving quality and expanding market outlets--(RM:c-2550-47)

Dairy products. During 1956, the mobile bacteriological laboratory was stationed in Benton, Morrison, Stearns, and Sherburne counties to assist dairy manufacturing plants in establishing uniform grading procedures and in locating and correcting conditions causing contamination and quality deterioration. The procedure followed was to draw samples from incoming raw milk and from the various dairy products in the processing lines, analyze them, report the results of the analyses to plant managements, and assist managements in eliminating sources of contamination.

(Minnesota)

This service has been extended to all plants in the State at least once. The program has resulted in a marked improvement in product quality and has enabled Minnesota dairy plants to compete in the markets more effectively with plants in other areas.

The Minnesota Department of Agriculture continued encouraging schools to participate in the Special School Milk Program. Emphasis during the year was on schools in small towns where milk deliveries are not on a daily basis. Assistance was given such schools in installing refrigeration equipment and in obtaining the cooperation of dairies in supplying milk. The fact that most schools in the State are now in the program is attributable in part to the work under this project.

Efforts of the Minnesota department to increase outlets for milk through vending machines have resulted in the placing of about 600 machines in the Twin Cities area and approximately 100 machines in the Duluth area. Significant results were achieved during the year in encouraging vending-machine companies handling other food and beverage items to install milk-vending machines.

Eggs. Specialists assisted representatives of the poultry industry in drafting a proposed egg law to replace the present law. This proposal will be presented to the next legislature. Specialists also conducted a survey in the deficit egg-producing area of northeastern Minnesota to ascertain the demand for high-quality eggs. The survey indicated that considerably more eggs of good quality could be sold in this area than were being made available. A marketing program is being organized in the surplus producing area of northwestern Minnesota to supply this market.

Honey and maple products. In cooperation with the Minnesota Beekeepers Association, work was begun to develop proper grading and labeling procedures for Minnesota-produced honey. A similar program was started for maple syrup and other maple products. As the basis for a sound quality improvement program for maple products, specialists made a survey of the methods of gathering, processing, and bottling being followed. They gathered samples of syrup and other products and examined them for bacterial count, color, and taste. Where this procedure indicated a poor-quality product was being produced, the specialists advised the producers of the findings and suggested changes in methods which would improve quality.

Potato seed. Assistance was provided producers of certified and foundation stock potato seed in the Lake of the Woods area in organizing under the provisions of the Minnesota Potato Development Marketing and Advertising Act. Meetings were held with producers of certified seed from all areas of the State to consider plans for a promotion program for Minnesota certified seed potatoes.

Apples. Meetings were held with growers, brokers, wholesalers, and retailers to inform them of the provisions of the Minnesota Apple Grading and

(Minnesota)

Labeling Law of 1955. Articles explaining the provisions of the law were prepared for newspapers, trade magazines, and radio stations.

Developing methods of certifying nursery stock--(RM:c-3550-28)

The marketing and distribution of stone fruit nursery stock produced in Minnesota is vitally affected by virus diseases which infect many of these trees. The market for Minnesota nursery stock has been limited by regulations and quarantines imposed by other areas against certain stone fruit trees and propagating parts unless the trees and parts are certified as free from certain virus diseases and it is certified that these virus diseases do not occur in the nursery of origin.

Virus diseases apparently infect all varieties and species of Prunus which are grown in Minnesota. In addition to the fruiting varieties, a large percentage of the plants propagated are ornamental varieties, propagated for their colorful foliage and striking flower production. As these varieties are equally susceptible to the virus diseases and are under the same quarantine regulations, they were included under the project

During the year, the Minnesota Department of Agriculture, in cooperation with the State Agricultural Experiment Station, continued work on three distinct phases of the project: (1) Establishing virus-disease-free budwood sources from which disease-free propagating material is obtained, (2) inspecting these trees used as propagation sources to verify the absence of the virus diseases which produce readily discernible symptoms, and (3) indexing these source trees into susceptible varieties and species to determine their freedom from hidden or masked virus diseases. These activities are basic to a virus-free certification program.

Three new budwood mother blocks of trees free from necrotic ring spot were added to this project during the year. Ten budwood blocks, in 6 of the largest nurseries in Minnesota, are now included in the work. This represents about 2,200 individual trees of 52 winter-hardy Prunus varieties. However, only 7 of the 10 blocks contain trees which have been indexed at least 3 times and each time found to be apparently free from necrotic ring spot virus. The number of parent trees in 3 of the 10 indexed blocks has been increased by the addition of trees of new varieties that were not previously included in the block and also by the addition of trees to presently stocked varieties which are now in greater demand than they were several years ago. These new mother trees have not been completely indexed, and they are not included in the above total of disease-free trees. However, 5 of the 6 nurseries are now propagating nearly all their Prunus from mother trees free of necrotic ring spot.

Tentative plans have been drawn up so that an initial certification program can be instituted in cooperating nurseries. Trees propagated under this program will be certified as being from an approved budwood source, determined to be apparently free from known injurious virus diseases.

(Minnesota)

These trees may not be free from all virus diseases in general, for it is possible that other viruses, not now known in Minnesota, are present. This initial program, in effect, will be a start toward the goal, but it will not represent the final degree of certification.

Providing new basic data--(RM:c-4550-26)

Dairy products. The Minnesota Crop and Livestock Reporting Service continued its monthly dairy summary, which provides producers and dairy plants with a wide range of information on the marketing of dairy products.

Turkeys. Turkey producers, breeders, and hatcheries were given information on the indicated size and breed composition of the 1956 breeder hen flock in Minnesota and of the 14 other States in which such data were available.

Hogs. The quarterly reports on sow farrowings and hog numbers were continued.

MISSISSIPPI

Improving methods of handling (milk)--(RM:c-2550-21)

For the sixth year, the Mississippi Department of Agriculture cooperated with the Extension Service and Mississippi State College in a program to improve the quality of fluid milk and milk used in manufacturing dairy products. During the year, about 600 producers delivering milk of poor quality to 2 fluid milk plants and 4 manufacturing plants were visited and given advice and assistance in adopting milk handling procedures and in installing equipment required to maintain quality. In this work, 541 milk samples obtained from producers and processing plants were analyzed to determine causes of poor quality or objectionable flavors in milk. Under this program, improvement was made in the quality of over 400,000,000 pounds of milk, which is approximately half of the State's annual milk production.

Improving methods of handling (vegetables)--(RM:c-2550-27)

Marketing specialists, in cooperation with the Extension Service, assisted some 15,000 vegetable growers in improving their returns last year by demonstrating to them proper methods of harvesting, grading, loading, packing, and packaging their products, and in locating market outlets. This work, which was augmented by the addition of a specialist to the staff, was concentrated at the Farmers' Central Market at Jackson and at several seasonal branch markets throughout the State. During the year, 81 meetings to demonstrate and discuss improved methods of performing the various marketing operations were held with more than 3,000 producers, shippers, and others attending. Visits also were made to 343 farms to provide assistance to individual producers on marketing problems. An example of the accomplishments of this

program is provided in the report of the marketing specialists in the southern part of the State. These specialists provided marketing assistance to producers of 716 carloads of spinach and other leafy vegetables, watermelons, and potatoes; 1,165 tons of peas and mixed vegetables; and 41,000 bushels of sweet potatoes and peaches. It is estimated that these activities improved producer returns by $85,000.

By following the recommendations of the marketing specialists, Mississippi watermelon growers were able to realize a small profit under conditions which otherwise would have spelled disaster. Growers experienced an adverse growing season, and the melons produced were generally small and of mediocre quality. Through careful grading and selection of melons and an effective buyer information program, it was possible to move the crop at a small profit.

The services provided to tomato growers during the year, through demonstrations of proper handling and grading practices, enabled them to market their crops successfully. Assistance was provided through maturity demonstrations and advice to growers to harvest only U. S. No. 2 or better tomatoes for commercial shipments, and let the off-grade tomatoes ripen on the vine for delivery to canneries.

Maintaining quality and expanding market outlets (poultry and eggs)--(RM:c-2550-76)

This project, started in July 1956, has three objectives: (1) To inform producers, handlers, and others about the provisions of the State egg law; (2) to improve the grading, packaging, packing, handling, storing, and transporting of poultry and eggs at local, wholesale, and retail outlets; and (3) to assist in the development of market outlets for graded poultry and eggs through demonstrations and other promotional activities. This work is still in its early stages.

Providing new basic data and marketing information--(RM:c-4550-18)

In connection with the program to obtain basic marketing data on a county basis, work was under way on the development of new data for: (1) Acreage, yield, and production estimates by counties for corn and oats; (2) numbers of cattle and calves on farms by counties; and (3) statistics on commercial vegetables to provide the basis for monthly forecasts of acreage, yield, production, crop development, and related information.

On July 1, 1956, the Crop and Livestock Reporting Service started a monthly publication, "Mississippi Farm Report." This publication summarizes basic data on Mississippi agriculture, collected by that service.

A mailing list of approximately 25,000 farmers was compiled for use in obtaining basic data and marketing information upon which the county estimates are based.

(Mississippi)

Supplement No. 1 of the Base Book of Mississippi Agriculture was issued in the spring of 1956 to keep up to date the comprehensive statistical summaries of production, utilization, and marketing of Mississippi agricultural products.

MISSOURI

Improving quality and expanding market outlets--(RM:c-2550-64)

Livestock. Under its program for expanding marketing outlets for livestock, the Missouri Department of Agriculture during the year worked with various registered-livestock breeders' associations in preparing and distributing registered-livestock brochures and directories, directly aimed at finding markets and increasing the demand for registered cattle. Increased use of registered cattle for breeding purposes would raise the overall quality of beef, and experience has shown that the market demand grows with quality.

About 439 breeders of Aberdeen-Angus registered cattle have contributed to the printing of a brochure promoting the merits of that breed, and 10,000 copies of the brochure "Missouri Blacks are Better" have been distributed. A total of 114 breeders of Shorthorns and 43 breeders of Polled Shorthorns participated in getting out a brochure, "Profit with Shorthorns from Missouri," which has been distributed to a mailing list of 10,000. The department has printed and is now distributing 10,000 copies of "Missouri Polled Herefords--Have Everything But Horns," which also received advisory and financial assistance from 408 breeders of Polled Herefords.

Similar cooperation between the department and the swine industry has resulted in the printing of 5,000 copies of a booklet, "Missouri Durocs--The Red Hog with More Red Meat," toward the printing of which the Missouri Duroc Breeders Association contributed to augment matched funds. With the cooperation of the Hampshire Swinebreeders, 5,000 copies of a brochure expounding the merits of Missouri Hampshires is being printed, and the Yorkshire breeders are ready to work with the department on printing 5,000 copies of a booklet aimed at promoting new markets for Yorkshire swine.

Distribution of the brochures will continue to be wide and varied. For example, a copy was sent to each member of the participating associations, as well as to many breeders who are not members. Fieldmen of the cooperating associations aided in distributing the brochures at field days held by the associations. Some of the leading farm magazines have assisted by publicizing the availability of such brochures on request to the department. The brochure program calls for distribution of a list of registered and commercial livestock for sale, each 90 days, for the various breed associations taking part. Lists will be supplied by the associations, and the Missouri department will print and distribute them.

(Missouri)

Dairy products. Since dairying is important in the overall economy of Missouri and quality is highly important in marketing dairy products, the department has initiated a program to improve quality and pave the way for expanded marketing outlets.

As one phase of the dairy program, a bacteriologist has been placed in the field to make a comprehensive survey of the physical conditions and methods used in each plant manufacturing butter or cheese or both. Another specialist of the department has been developing a dairy product promotion and merchandising program. This work is being carried on in close cooperation with the industry and the interested associations.

Experience with the dairying industry in Missouri has indicated that the greatest need for quality improvement and promotion lies in butter and cheese production and marketing. Therefore, the bacteriologist began operations last May, his duties being specifically to survey the plants processing those commodities and to point out all shortcomings. At the end of each survey of a plant, the bacteriologist met with the plant management to discuss corrective measures. The surveys made by the bacteriologist are accepted by the Agricultural Marketing Service, USDA, as a basis for its grading activity.

In the dairy products promotion program, the department specialist assigned to this work cooperated with the American Dairy Association of Missouri and 16 local June Dairy Month chairmen from widespread sections of the State in planning and conducting promotion activities. For example, he assisted in setting up June Dairy Month store displays and in publicizing Missouri dairy products as a whole. According to reports, these activities increased dairy product sales by 10 to 15 percent. The specialist also prepared a cheese exhibit which was displayed throughout the National Jersey Conference in Springfield, Mo. Delegates and other visitors to the conference were provided with samples of the cheese products made by Missouri processing plants, and arrangements were made for them to purchase cheese directly from Missouri plants. At a "hospitality party" during the National Junior Chamber of Commerce Conference in Kansas City in the summer of 1956, the specialist assisted in arranging the distribution of Missouri dairy products to about 11,000 guests. The products distributed at these events were supplied by the dairy industry.

Eggs. Missouri's matched-fund marketing program for eggs was closely coordinated with enforcement activities under the State's new egg grading law. These programs are designed to improve the quality of Missouri-produced eggs. Producers in the past have been adversely affected market-wise by the poor quality of eggs generally. There had been a lack of an effective program to assist producers and marketing agencies in improving quality and of an adequate grading law.

The department cooperated closely with producers, dealers, and the Extension Service in efforts to improve the quality and outlets for eggs. In efforts to expand the market outlets, the department disseminated information

to the public on quality eggs through news releases, radio broadcasts, and other publicity media. Tape recordings of discussions of Missouri quality eggs have been made available for radio use. A brochure, "The Egg and You," explaining the new egg grading law, was widely distributed to retailers, dealers, and producers. A directory of Missouri dealers who are able to supply graded eggs and other poultry products to distributors was disseminated throughout the State, as well as in other States where potential markets exist. In addition, a portable, self-contained display booth promoting Missouri eggs was designed and built by the department and used at fairs and conventions.

Apples. In cooperation with the Missouri State Horticultural Society, a buyer information service was developed to expand markets for apples. Information was obtained from each commercial apple grower in the State covering location, estimated total bushels, varieties, and dates of harvest. A brochure was developed from this information and distributed by mail and personally to a selected list of potential brokers, receivers, and distributors of Missouri apples in the trade territory bounded by a triangle with Minneapolis at the north, San Antonio at the southwest, and Mobile at the southeast corners. One buyer reported: "This is the first time anyone, either grower or broker, has called on me about Missouri apples." Many growers reported that as of September 12, they were sold out of Jonathan and Delicious varieties.

Another phase of the apple promotion program included showings of the dental health film "Gateway to Health." To increase the effectiveness of the film, arrangements were made for its showing in medium-size county-seat cities and trade centers for periods of one week. This arrangement allowed sufficient time for showing the film to all grades of public and parochial schools, to training schools, junior colleges, 4-year colleges, adult groups such as PTA's and civic clubs, dental associations, and others, and for its use by county agents, home demonstration agents, and county health personnel. The reaction of school children to the film was indicated by the remark of one parent: "The apples we had in the refrigerator were quickly consumed as the kids insisted they had to eat one after each meal." Other promotional devices included a display of apples at the State fair plus "Aunt Annie Apple" and her (tape recorded) message about varieties and uses of apples. This promotional work at the State fair generated requests for 25,000 copies of an apple recipe booklet supplied by the Extension Service.

Watermelons and cantaloups. In cooperation with county Extension agents in southeast Missouri, information was obtained about watermelons and cantaloups concerning total acreages per county, varieties, qualities, principal shipping points, and approximate dates of harvest. This information was used in preparing a buyer information pamphlet similar to that developed for apples. Copies of this pamphlet were mailed to a selected list of 450 brokers, buyers, receivers, truckers, and distributors of Missouri watermelons. An equal number were supplied to cooperating county agents for the use of growers and associations in their areas.

(Missouri)

Strawberries. Assistance was given strawberry growers and shipping associations in the producing areas of the State in improving the pack. At the suggestion of specialists, several shippers adopted better types of packages, such as single-layer cardboard trays and 2-layer wooden crates. Manufacturers of these packages cooperated in conferences held with managers of shipping associations and leading growers. Berries so packaged brought premium prices on both the St. Louis and Kansas City markets. In newer strawberry areas of the State, especially southeast Missouri, assistance was given growers in training field help in proper methods of picking to insure a high-quality pack. In cooperation with the Extension Service, radio and television were utilized during the harvest season to publicize the availability of and ways to prepare and use strawberries.

Vegetables. Increasing interest in southeast Missouri in devoting "diverted" acres to vegetable crops suggested the desirability of a tour to St. Louis to observe some of the problems connected with the marketing of such crops. A tour was conducted for a group of growers from that area, during which they had an opportunity to observe the growing and preparation of vegetables for market and their distribution through wholesale, retail, and processing outlets.

Specialists of the department also assisted sweet corn growers in improving harvesting and cooling methods so as to insure the delivery of corn to retail market in "farm fresh" condition.

Obtaining and analyzing new basic data useful to producers and marketing agencies in planning marketing programs--(RM:c-4550-47)

Hogs. The Missouri Crop and Livestock Reporting Service joined with the crop and livestock reporting agencies of 8 other Corn Belt States in improving the reports relating to prospective hog marketings, through the addition of March 1 and September 1 quarterly surveys to supplement the semiannual surveys as of December 1 and June 1. The new quarterly reports based on these surveys show (1) the number of pigs saved by quarters, (2) the number of all hogs on hand by age groups at the end of each quarter, and (3) the intentions to farrow the next two quarters. Through the more frequent surveys of hog producers' plans, it is possible to determine changes in plans for farrowing much earlier than was possible under the semiannual program. As more yearly records become available, it will be possible to improve the estimates of monthly marketings.

Seed corn. Another activity under this project involved determination of the varieties of hybrid seed corn planted by Missouri farmers. A number of corn growers were asked to report the variety and color of corn used in planting the 1955 acreage. This information was requested by the Missouri Experiment Station for use in revising their experimental work on hybrids and yields. The details were not made available for general distribution, since 64 companies sold 511 different varieties in the State. The other phase of the survey--color of corn--was particularly valuable to the commercial concerns who buy white corn at a premium. They are interested in learning what localities

(Missouri)

produce this type, as well as in promoting the expansion of acreage. This survey probably will be repeated at 5-year intervals.

MONTANA

Improving the quality of agricultural products--(RM:c-2550-52)

Eggs. During the year, department specialists made a survey of over 1,900 retail stores in Montana, or about four-fifths of the total number, to find out to what extent eggs are displayed in refrigerated cases and to compare the quality of refrigerated and nonrefrigerated eggs. They candled and graded eggs in each store, and if the grades found by them were below the supplier's grades, the retailer was requested to consult with the supplier to solve the problem. Whenever possible, the specialists themselves contacted the suppliers and gave them instructions on the grading and care of eggs. Of the stores covered by the survey, 80 percent refrigerated all of their eggs, and the remainder had only partial or no refrigeration. Of the eggs marked AA grade, 12 percent that were refrigerated were not up to grade, whereas 24 percent of those that were unrefrigerated were not up to grade. Eggs that did not measure up to the specified grade were graded down, and the retailer took the financial loss. As a result of the program, producers and retailers are becoming more conscious of quality, and an increasing number of retailers now are refrigerating their eggs.

Dairy products. Quality improvement work was continued during the year on butter, ice cream, ice cream mix, and cottage cheese. Department specialists made monthly visits to the dairy plants and obtained samples of their products for testing and scoring by Montana State College. About 4,000 tests were made, and the results reported to the plant managers, many of whom have made changes in their operations to improve the quality of products. In some cases, certain modifications which would have resulted in higher quality were not possible, and plant managers discontinued manufacturing the products involved and now buy supplies of better quality products from other plants.

Obtaining new basic data for grains--(RM:c-4550-34)

Wheat is grown on about two-thirds of the 35,000 farms and ranches in Montana and is sold to about 500 grain dealers. Montana wheat, recognized for its high protein content, is used largely for blending with other types of wheat for certain kinds of flour, and much of it commands price premiums above the usual base price. The premiums vary considerably from year to year, depending on the demand, and the production also varies significantly. To assist both producers and processors in a better balanced production and marketing program for high-protein wheat, data relating to production by protein content groups, average percentage of protein content, and production by varieties for the main wheat-producing counties were assembled during the year. A report, to be published soon, will be distributed to all wheat dealers in the State, county agents, bankers, railroad officials, and others connected with the production and marketing of Montana wheat.

NEW JERSEY

Providing basic data and marketing information--(RM:c-4550-42)

Fruits and vegetables. A weekly report, "New Jersey Truck Crop News," covering 20 vegetables, was issued during the year to a mailing list of 1,400 wholesalers, buyers, shippers, and other members of the trade. This report provided information by production areas on growing conditions, yield prospects, expected harvest dates, and expected volume for all principal vegetable crops, and some fruits. Separate monthly crop reports for fruits and vegetables, including potatoes, provided detailed information on competitive supplies from other States. Many of the vegetable crops grown for fresh market in New Jersey have short harvest seasons, and with supplies changing rapidly, the trade needs up-to-date information on expected harvest dates and relative volumes for each area. Shippers in distant producing areas also use this information in planning distribution, so as to avoid conflicts with heavy local supplies.

Blueberries and cranberries. During the year a complete enumerative survey was made of all blueberry and cranberry growers in the State, which provided information on acreage, yields per acre, and production by counties and by townships. The acreage of blueberries has increased so rapidly in recent years that this crop is now one of New Jersey's important fruit crops, with a value of several million dollars a year. Meanwhile, the acreage in cranberries has been declining. This survey, covering 650 growers, was made at the request of marketing organizations, research agencies, growers, and others needing an up-to-date, complete inventory of these industries. A report entitled "The Blueberry and Cranberry Industries in New Jersey" is being prepared.

General. A number of special reports were issued during the year to provide producers with information on spring and fall pig crops; acreage, production, and yield of varieties of wheat; prospective plantings of various crops; expected turkey crop; production of apples by varieties; and number of milk cows and milk production for New Jersey compared with other States.

The program for annual publication of county estimates for all crops and livestock, initiated in 1955, was interrupted this year while estimates were being revised on the basis of the 1954 Census of Agriculture. The annual publications will be resumed in 1957. These estimates are used widely by many business firms and organizations in planning programs for marketing or processing farm products, and by firms selling farm supplies, equipment, and service to farmers.

NEW YORK

Providing special market information--(RM:c-2550-26)

Eggs. For about the last 70 years, the price of eggs in the Northeast has been based on prices on the Mercantile Exchange in New York City. This practice was regarded as satisfactory as long as a large proportion of the shipments passed through the Exchange. Today, however, less than 1 percent of the egg production of the State passes through it, with the result that some in the industry feel that these prices do not reflect conditions in other parts of the State and the Northeast.

At the request of the egg industry, a survey of upstate price quotations was undertaken, the objective of which was to provide the basis for the development of an f.o.b. farm market report. Personal visits were made to about 30 large buyers to obtain information about the pricing of eggs, to explain the program, and solicit their cooperation. Market reporters collect price data semiweekly from these buyers, and forward this information to New York City by teletype. A report, issued on the same day that the information is gathered, is published on the basis of two areas: (1) New York State with the exception of the Hudson Valley and Catskill Mountain areas, and (2) the Catskill Mountain and Hudson Valley areas. The mailing list thus far is limited to only the cooperating dealers. Further dissemination is being withheld pending a meeting of representatives from other New England States.

The cooperation of egg assemblers in this program has been gratifying, and efforts of the department to improve the method of reporting prices of eggs received by producers have been received enthusiastically. At present, it appears that a range in prices is more desirable than one quoted price, the reason being that within each purchase the percentage of Grade A and AA eggs varies considerably. A price range would give the dealer and the producer an opportunity to bargain, and would give the producer an incentive to improve the quality of his eggs in order to obtain the higher price in the range for the particular grade.

Livestock. Quarterly reports of livestock marketing information, obtained from 62 to 65 active livestock auctions in the State, have been continued. They were sent to livestock auctions, county agents, buyers, and colleges. These reports provide the only information on auction sales of livestock in the State, through which over 80 percent of the livestock sold passes. The reports enable the department to figure seasonal trends in movement, as well as to judge the effects of other factors on livestock movement. A knowledge of these trends makes it possible for the department to aid the industry by setting up regulations on sales. For instance, the department used this information in its efforts to bring about legislation requiring the cooking of garbage for commercial hogs and to eliminate resale of brucellosis-infected dairy animals. The U. S. Department of Agriculture also has used the data in its livestock sales figures, and the auctions have used them as a guide in estimating their volume and improving their business.

(New York)

Christmas trees. A report of market information on Christmas trees was continued during the marketing season. Six weekly reports, based on information obtained from all growers in the State, were sent to over 600 growers, county agents, and buyers throughout the State. They contained information on prices of different varieties, whether trees are sold cut or on the stump, age, height, degree of color, general condition, and the supply shipped in from Canada to New York City.

Each year, more and more trees are being planted in the State, and they are becoming an important source of supplementary income to many farmers. There is a large potential market for this product, as evidenced by the fact that in the 1955 marketing season New York City alone received 414 carloads, most of which were shipped in from Canada. The market reports are needed to aid in the marketing of this product, and are used extensively by growers and shippers.

Maple products. Reports have been issued in the last four seasons giving market information on quality, quantity, demand, supply, bulk and gallon prices by grades, and production prospects and information from other areas for maple products. Methods of reporting gradually have been improved. The report is issued on the basis of three producing areas: (1) northern, (2) western, and (3) central-eastern New York. During the last marketing season, over 500 copies of the weekly reports were sent to cooperating producers, county agents, newspapers, radio stations, and other organizations.

New York State is second only to Vermont in production of maple products, which are an important supplementary source of income to hundreds of farmers in the State. In 1956, the total value of the maple syrup and sugar produced was nearly 1.8 million dollars. These reports are the only information available in the State on maple products, and have proved to be of great economic value to producers.

Apples. New York State ranks second in the United States in production of apples. Last year it produced over 19 million bushels, which brought in 26.5 million dollars. To aid growers and shippers in the marketing of this crop, a weekly f.o.b. report is issued during the marketing season for about 32 weeks, and is sent to cooperating producers, apple storage owners, county agents, apple organizations, and colleges. It contains information on prices according to variety, grade, size, pack and condition; current demand; movement into and out of storage and to retail stores; cold storage holdings; and processing prices and situations. Many producers and storage operators claim that this report, which has been issued since 1952, is their best source of information on the marketing of apples, and they use it extensively. It has been a major factor in leveling off the sharp price fluctuations previously experienced in this area.

(New York)

Maintaining quality and improving distribution (fruits and vegetables)--(RM:c-2550-54)

Work was continued in the Rochester area on the development of attractive uniform packages for fruits and vegetables that will protect the product during shipment. This program, started in 1954, ties in with the long-standing need for standardization of packages to attract buyers to the Genesee Valley Regional Market Area. Committees were organized, each to work on one or two products, and recommendations were made regarding the type of packages to be used in the 1956 season for 32 fruits and vegetables. After approval by the Bureau of Weights and Measures and the Genesee Valley Regional Market Authority, lists of these recommendations were sent to the cooperating package companies, wholesalers, and chainstores, to county agents, and to 309 farmers who indicated they would use the facilities offered by the market.

During the marketing season a definite trend toward adoption of the recommended uniform packages by farmers and shippers was noted, and in many cases these packages proved to be much more satisfactory than the types previously used. In instances where growers have not yet adopted the recommended packages, the usual reason given for not doing so was that they had a large supply of other types of containers on hand representing an investment that they could not afford to lose. However, many indicated that they would change over to the suggested packages as soon as their current supplies were depleted.

Upon request of the State budget director, a survey of the Niagara Falls Market was made, to ascertain the feasibility of State aid for reconstructing the market and to obtain information as a basis for determining if market improvements would result in increased sales of locally grown produce. Data were obtained from 145 users of the market, including farmers, farmer-dealers, merchant truckmen, and hucksters. Analysis of the data showed that of 547 stalls available, the number rented ranged from 29 percent in January to 69 percent in August. The number of stalls rented has decreased gradually each year, with approximately 50 percent less stalls rented in 1955 as compared with 1952. Of the 145 users interviewed, about 80 percent stated that they would rent stalls if the facilities were improved. About 50 percent would pay more rent, but are willing to pay only about two-thirds of the proposed increase.

Providing new basic data--(RM:c-4550-16)

The survey of muckland areas was continued in order to improve truck crop acreage estimates and to provide a basis for more accurate production forecasts. The counties covered during the year were Wayne, Oswego, Orange, Madison, Orleans, and Genesee. The survey showed that in 1956 farmers in Wayne County operated 5,963 acres of muck; Oswego County, 3,345 acres; Orange County, 9,904 acres; Madison County, 4,354 acres; and Orleans and Genesee Counties, a total of 7,458 acres.

(New York)

A report similar to one released for the 1954 season was issued for the year, showing the quantities of grapes purchased within the State and from other States and Canada by 34 wineries and processing plants. The report also contained information on the primary uses made of the product--whether for sweet juice, wine, or other purposes.

A list of fruit and vegetable processing plants in the State, by areas and by counties within each area, was issued, giving the names and addresses of processing firms and the crops that they are equipped to handle.

NORTH CAROLINA

Improving efficiency of cotton gins and cornmeal mills--(RM:c-3550-1)

The North Carolina Department of Agriculture continued its program of providing assistance to cotton gin operators in improving ginning equipment and ginning operations to obtain maximum preservation of fiber quality. Since this program began in 1948, the percentage of gin-damaged, or "rough prep," cotton ginned in the State has been reduced from about 16 percent to less than 1 percent. This improvement has been reflected in increased returns to cotton growers of at least $1,000,000 annually. The progress made in reducing gin-damaged cotton has permitted specialists to concentrate on other problem areas in ginning and marketing. During the year, increased contacts were made with mill technicians to determine mill requirements with respect to the machining, cleaning, and conditioning of cotton. This information was relayed back to gin operators. Under sponsorship of the North Carolina department, ginners have organized into local groups to work together in the solution of mutual problems.

Technical assistance to gin operators in Virginia is provided by the North Carolina department under a joint arrangement with the Virginia Department of Agriculture and the Virginia Agricultural Extension Service. The improvement in ginning operations in Virginia under the program has paralleled that in North Carolina.

In connection with these activities in the two States during the year, specialists of the North Carolina department made 270 visits to gins and cotton mills, participated in 46 ginner group meetings, made 12 appearances on farm and civic programs, and maintained daily contact during the ginning season with the USDA Classing Office to determine which particular gins were having difficulty in maintaining high standards of performance in the ginning operation.

The service program being provided by the North Carolina department to corn processing mills is designed to assist in maintaining plant and equipment in a sanitary condition, so as to comply with pure food regulations; in securing wholesome raw material, and in improving the quality of corn food products. During the year, specialists made 520 visits to mills to assist

(North Carolina)

operators with problems of mill layout, the design, installation, and operation of equipment, procurement of raw material, and sanitation. In addition, specialists participated in 25 corn miller meetings, 6 conferences on corn procurement problems, and 4 grain grading schools. Achievements under this program are difficult to measure objectively, but it is reported that both the Food and Drug Administration and commercial testing laboratories feel that substantial progress has been and is being made in improving the quality and market acceptability of corn food products.

The North Carolina department is being called upon more and more to develop programs to assist processors of other commodities in improving the efficiency of operations and product quality. Requests for such assistance were received during the year from 6 feed mills and 2 grain elevators. These concerns were particularly interested in increasing the efficiency of their materials-handling methods.

Testing cotton fibers--(RM:c-3550-29)

The cotton fiber testing program which the North Carolina department developed in 1951 includes testing for various properties such as length, strength, fineness, uniformity, and maturity. The purpose of this program is to provide cotton merchants and mills with information about the quality of cotton available in different areas of the State. In carrying out the program last year, samples were obtained each week from 27 selected ginning and marketing points, the samples analyzed, and the test results released on alternate Fridays to merchants, mills, and shippers interested in southeastern growths. These reports were furnished to foreign mills and buyers through the Atlantic Cotton Association

This program has accelerated the use of laboratory test results by North Carolina cotton merchants and mills and has facilitated their selection of cotton for specific end uses. The value to merchants and mills of this program is indicated by their requests that the service be made more comprehensive.

Improving marketing practices and expanding outlets--(RM:c-3550-31)

Fruits and vegetables. Specialists of the North Carolina department engaged in the following activities during the year:

1. Helped a group of farmers in one county in reorganizing a vegetable auction market and in remodeling facilities and installing equipment to permit more efficient grading and packing operations.

2. Assisted commercial apple growers in western North Carolina in developing more outlets through which to make f.o.b. sales and in providing more adequate facilities and equipment to improve the efficiency of grading and packing.

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(North Carolina)

3. Advised an organization of North Carolina potato growers regarding the most effective use of industry funds for promoting their product.

4. Located for sweet potato growers in the State sources of certified seed stock free from the internal cork disease.

5. Worked with a new group of sweet corn growers in acquiring proper facilities and equipment and in adopting the best methods of preparing the corn for market.

6. Assisted producers and marketing agencies in finding additional outlets for fruits and vegetables through a buyer information service under which buyers for military installations and chainstores and itinerant truckers were provided with up-to-date information as to volume, sources of supply, and harvesting periods.

Livestock and wool. The North Carolina department continued to sponsor special sales to facilitate the marketing of small lots of animals and to demonstrate the advantages of selling livestock on the basis of uniform grades and weights. Approximately 3,420 feed cattle, 5,000 calves, and 13,000 lambs were sold through the 19 special sales and 21 lamb pools organized and conducted by specialists. Animals marketed in this manner brought from 2 to 4 cents a pound above prices paid at other local markets for comparable grades and classes. Assistance also was given a group of farmers in marketing about 1,400 feed cattle directly to packers on a grade and yield basis. On these direct sales, producers realized from ½ cent to 3 cents a pound above prices being paid at local auction markets for comparable animals.

Specialists engaged in several activities to encourage the buying and selling of hogs on the basis of grades. Five special market hog sales were held during the year to demonstrate to producers and others how hogs should be graded. The advantages of producing and marketing meat-type hogs were shown at 8 cut-out demonstrations held at fat stock shows. Hog buyers at 5 slaughtering plants were trained in methods of grading live hogs. These plants had adopted the policy of paying a premium for No. 1 hogs. In a further effort to improve the marketing of hogs, the North Carolina department established a clearing house system for moving feeder pigs from the western to the eastern part of the State. This program served the mutual interests of the feeder pig producer and the feeder; it assured the producer of getting top value for his feeder pigs, and enabled the feeder to secure animals of top quality.

Specialists again provided assistance to wool producers in conducting the Statewide pool. This pool handled about 115,000 pounds of wool for 731 producers, and through it producers realized the price advantages of selling on the basis of quality and of being able to offer buyers large lots of uniform grade.

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Poultry and eggs. The department continued to provide assistance to producers, processors, and packers of poultry and eggs in improving and enlarging facilities so as to assure greater efficiency in their operations and to permit them to meet consumer demands for properly processed, graded, and packaged products. One of the activities involved in this work consisted of preparing complete plans for the construction or remodeling of buildings, and the layout of equipment, drainage systems, etc. For example, such plans were prepared during the year for remodeling 6 poultry processing plants. It is estimated that the remodeling reduced processing costs by about one-half cent a pound and will permit an annual saving for the 6 plants of $120,000.

Specialists also assisted 35 poultry processors in improving processing methods and packaging techniques which enabled these plants to place a higher quality product on the market. These processors were encouraged to grade their poultry properly and identify their product with a grade label or trade-mark.

Specialists continued to work closely with producers, distributors, and retailers of eggs to assist them in supplying the demand for properly graded, packaged, and labeled eggs. More than 1,100 retailers were visited during the year in the program to improve egg marketing. During these visits, about 2,700 retail employees were instructed in the proper care and display of eggs. In cooperation with the Extension Service and Vocational Agricultural Department, specialists conducted a series of egg-grading schools, attended by about 100 trainees, to meet the demand for qualified graders. Technical guidance also was given producers and handlers in establishing 22 new egg marketing facilities needed in marketing the State's expanding production.

Tobacco. New developments in the rapidly changing tobacco situation have posed for growers an economic problem in the preparation of tobacco for market according to standard grades and market demand. Growers are experiencing greater losses on poorly sorted tobacco because of the narrow margin between the support price and auction price on many of the better grades. For example, a basket of tobacco that is not uniform in group, quality, and color will usually grade into a lower standard grade and command a lower market price than one that is uniform. Thus, growers lose several dollars per hundred pounds on grades of tobacco that are not uniformly sorted. The major problem is that growers lack knowledge of the standard grades.

During the year, specialists concentrated their efforts on services and activities that would help growers improve their preparation and marketing of flue-cured and burley tobacco. Toward this end, they conducted 96 meetings in 23 flue-cured tobacco counties and 8 burley tobacco counties. These meetings were attended by 2,210 farmers, and Future Farmers of America and 4-H Club members.

To give growers an early start toward meeting marketing problems, specialists divided their work into two phases. The first phase started in January and continued through the first half of the year. It consisted of holding group meetings with farmers, in cooperation with vocational agricultural

teachers and county agents, at which a thorough analysis was made of the tobacco situation as it related to stocks on hand, domestic and export disappearance, changes in consumers' preferences, and new developments in the tobacco industry. These factors establish the trends in determining the kinds of tobacco that will be in strongest demand during the on-coming marketing season. It is impossible, in most cases, to prepare tobacco that is in weak demand so that it will sell above the support price.

The second phase, which starts in July and continues through the remainder of the year, deals with the farm sorting and marketing preparation problem. This phase also was pursued through the cooperation of agricultural teachers, county agents, and farm organizations in group meetings with tobacco farmers. Growers attending these meetings brought several samples of unsorted tobacco which came out of different curings in their crop, and assistance was given them in sorting this tobacco into uniform standard grades so that it would meet the market demand. This was accomplished by showing growers how to apply a simplified system of farm sorting, developed by a specialist of the North Carolina department, which provides a short cut for growers in getting their tobacco into uniform standard grades. Many farmers attending these meetings later indicated that the value of some of their tobacco was from $10 to $40 more a thousand pounds because they followed these recommended practices of farm sorting.

The seventh annual issue of the North Carolina Tobacco Report was distributed upon request to 6,000 tobacco growers, warehousemen, dealers, agricultural agencies, libraries, radio and television stations, and others interested in tobacco marketing. Favorable comments from many segments of the industry indicate that the information in this bulletin is very useful.

This service program for tobacco is coordinated with the programs of other State and Federal agricultural agencies so as to have a minimum of overlapping in work and to obtain maximum results.

Milk. One of the major problems in milk marketing in North Carolina is underconsumption. Per capita consumption of milk in North Carolina is only slightly more than half the national average. In view of this situation, the milk marketing program of the department places strong emphasis on measures to increase consumption, particularly among the children of school age in the State.

Slides and printed materials were used in meetings of teachers at local schools and also in meetings sponsored by the teachers with students in classrooms. The dairy marketing specialist visited 94 schools in 10 eastern North Carolina counties during 1955-56 and gave 324 illustrated promotional talks to approximately 35,000 children. Special assistance was given teachers working with these children. Materials were provided to the specialist by the N. C. Dairy Products Association and by local dairies. Local dairies assisted smaller schools in the area in obtaining refrigeration. Talks on the food value of milk and ways of increasing the effectiveness of milk programs in

schools were given at parent-teacher association meetings at about half the 94 schools visited. The specialist worked closely with home agents in the State, school supervisors, the N. C. Public Health Association and Home Economics Association, the Food Service Association, and other groups interested in improving the health of the State's children, as well as with the groups interested in selling milk. Lunchroom reports at the end of the year indicated that the program was successful. Milk consumption in the public school system jumped from just over 95,000,000 half pints in 1954-55 to just over 104,000,000 half pints during 1955-56.

Improving facilities and methods for handling grain--(RM:c-3550-32)

One of the major activities under this project consisted of assisting producers and grain dealers in providing adequate and efficient facilities for storing, drying, fumigating, and grading grain. Considerable progress has been made in this direction, and as a consequence the losses from deterioration and infestation have been significantly reduced. However, losses due to lack of proper storage and inadequate facilities for drying and conditioning are still appreciable. This situation is being reflected in a continuing demand by producers and dealers for technical assistance.

During the year, assistance was given 12 grain firms in determining the need for additional storage facilities and in planning new facilities.

Other activities included:

1. Conducting 5 group meetings for farmers, grain handlers, processors, and elevator operators to promote the use of grades for buying and selling grain and to provide training in the operation of grading equipment.

2. Assisting 60 firms in improving grain grading methods at their establishments.

3. Assisting 6 firms in determining the kind and quantity of grading equipment needed for their particular operations.

4. Assisting 6 firms in improving the operation of grain dryers.

5. Assisting the market news section of the North Carolina department in coordinating price quotations by grain dealers on the basis of No. 2 grade.

6. Assisting elevator operators in one county in grading and blending corn so as to provide an outlet for hurricane-damaged corn. By reason of this assistance, these operators were able to pay growers from 30 cents to 40 cents more a bushel for the damaged corn than would otherwise have been the case.

(North Carolina)

7. Cooperating with other Southern States in assembling information on the volume and value of grain and grain products moved intra- and interstate and on methods of movement, for presentation at a hearing before the Interstate Commerce Commission. This effort was made to secure freight rate adjustments into, within, and out of the South.

An example of benefits to growers from the activities to encourage the use of official grades in buying and selling appeared in a county where grain dealers had been using improper grading procedures for soybeans. The assistance of specialists to these dealers in correcting the grading methods was reflected in estimated additional returns of $100,000 to growers from whom they purchased soybeans during the year.

Providing new basic data (fruits and vegetables)--(RM:c-4550-8)

During the year, the work in connection with this project was divided into two phases, as follows:

1. Completion of the analysis and publication of results from a commercial peach and apple survey, started during fiscal year 1954-55.

2. A survey of sweet potato growers in North Carolina to obtain information on sweet potato production by areas, pinpointing production both as to locality and as to quantity. Also, collection of information with respect to storage of sweet potatoes on farms and in off-farm positions.

The results of the commercial fruit survey were published in bulletin form, and the information has been used extensively by fruit growers, nurserymen, and representatives of the State department of agriculture, agricultural college, and Extension Service in planning their work.

It is unfortunate that the survey for sweet potatoes was made to relate to the crop year 1955, since a succession of hurricanes during the fall of that year seriously reduced the harvest in commercial areas of North Carolina and reduced the quality of the product harvested. Under these circumstances, the 1955 season could not be considered as normal for sweet potatoes, and it was not considered practicable to assemble as much detailed information as had been contemplated.

Additional comprehensive surveys of the commercial sweet potato industry are planned for next year, to provide more detailed and useful statistics.

NORTH DAKOTA

Improving the quality of milk and dairy products--(RM:c-2550-40)

The quality of North Dakota milk and cream has continued rapid improvement during the year under the program of work with producers, buyers, and processors. A series of 25 area meetings were held, with an attendance of over 3,000. Literature setting forth what needs to be done in the program was distributed and discussed in detail. Since these meetings, the department has received numerous requests for plans for barns and milk houses that would comply with Grade A standards. During the year, the installation of cooling facilities in cream buying stations was completed. Many stations have installed walk-in coolers for holding cream. It is felt that a 60-percent increase in local sales of butter during the year is due largely to the quality improvement program.

Preventing deterioration and contamination of grain in storage--(RM:c-3550-36)

Farmers, county agents, the North Dakota Clean Grain Committee, and others were assisted through demonstrations of rodent-control measures to prevent the contamination of food grains. Special emphasis was placed this year on protection of the wheat crop. During the year, 13 countywide programs were held, and 4 additional programs are to be completed in the fall. During the countywide programs, over 38,000 pounds of rat and mouse bait were distributed to farmers, and assistance was given to 33 towns, 35 city dumps, and 45 grain elevators, as well as a chapter of the Future Farmers of America. The project leader held meetings which were attended by more than 2,400 persons. He assisted 815 farmers with specific individual problems, and contacted 121 elevator operators. Information on the program was disseminated through 6 articles prepared for the North Dakota press, 7 television programs, and an exhibit at the State fair. The department also participated in North Dakota Clean Grain Week, July 9-14--a week set aside by the Governor's proclamation for intensive clean grain activities. To determine where the greatest contamination is occurring, the department is cooperating with the North Dakota Agricultural Experiment Station in obtaining samples from combines and farm granaries which will be examined for rodent contamination.

OHIO

Providing experimental market news--(RM:c-4550-43)

Hogs. Work was begun on an experimental market news program to report the receipts and prices paid for the various grades of hogs at 60 local marketing points in central Ohio. Beginning January 1, 1956, this information was disseminated at 8:15 a.m., 10:15 a.m., and 11:15 a.m. over 3 Columbus radio stations having Statewide coverage. This information was carried also by the Associated Press and United Press, and disseminated in mailed reports. As of September 30, 1956, the hog market reports were provided from 80 buying points in central and western Ohio. Information of this kind aids the

(Ohio)

producer in determining when and where to market his hogs. Several producers have indicated that, as a result of the price reporting service, they received 50 to 75 cents more a hundredweight for hogs marketed.

Grain. An experimental market news program also was initiated to develop a daily reporting system covering prices paid for cash grain at country points in central and southwestern Ohio.

Providing new basic information (hogs)--(RM:c-4550-51)

The March and September reports on sow farrowings and hog numbers were continued. This program is coordinated with similar reports from 8 other Corn Belt States.

OKLAHOMA

Improving quality and expanding market outlets--(RM:c-2550-12)

Poultry and eggs. Assistance again was provided in improving product quality, processing facilities, and distribution methods for poultry, including turkeys. Processors participated in this program through a voluntary agreement with the Oklahoma State Board of Agriculture, which stipulated that their operations were to meet specified sanitary requirements as a prerequisite to the marketing of their product on a graded basis. Marketing specialists frequently visited these plants to demonstrate grade requirements and to assist in improving plant operations and marketing methods. Specialists also worked with retailers to improve retail poultry displays. As a result of these activities, the efficiency and sanitation of plant operations have been improved, damage to poultry has been reduced by about 20 percent, and market outlets for graded poultry products have been expanded.

In continuing the egg quality improvement program, marketing specialists worked with about 3,000 retail outlets to encourage the handling of graded eggs and to improve methods of caring for and displaying eggs. The results of the retail grading program are published monthly in egg inspection reports prepared by the board. This report is used by egg handlers and retailers as a guide in their transactions, and has greatly stimulated the marketing of graded eggs under the State's voluntary grading program. In connection with the quality improvement program, 13 meetings were held throughout the State in cooperation with county agents, and 53 egg grading demonstration schools were held in 38 counties, with 3,800 producers, distributors, and retailers attending. As a result of the program to encourage the marketing of eggs from caged hens, there are now about 300,000 caged layers in Oklahoma. During the year, such eggs were marketed at a premium of 8 to 12 cents a dozen.

Home demonstration agents helped to promote the use of quality eggs by assisting marketing specialists in presenting cake and egg shows in 8 cities throughout the State. Poultry and egg exhibits were held at the Tulsa and Oklahoma City fairs, to acquaint the public with poultry and egg grades.

(Oklahoma)

Fruits and vegetables. Technical assistance and guidance were provided growers in improving and maintaining the quality of cantaloups and watermelons through the adoption of better harvesting, handling, and marketing methods. The assistance provided to strawberry growers emphasized grade requirements and the advantage of marketing on a graded basis. As a result of this program, growers received an estimated premium of 50 cents a crate, which amounted to an estimated additional income to growers of $18,500. Marketing specialists assisted sweet potato growers in marketing a large crop at satisfactory prices, through personal contacts with buyers and promotional assistance directed at consuming centers in Oklahoma, west Texas, Kansas, and Colorado.

Honey. Grocery store displays and consumer leaflets were used in a promotion campaign to encourage a greater consumption of honey.

Pecans. Information was provided truckers, dealers, and other buyers on the availability of various types and quantities of pecans during the harvesting season.

Hay. Dairy and cattle producers were given urgently needed information about the location, price, quality, and quantity of available hay. The need for this type of program arose from drought conditions and insect damage which resulted in inadequate supplies of hay in this State.

General. Current market information was provided to producers and marketing agencies on the supply and price situation, through daily reports on poultry, eggs, feed grain, wheat, butterfat, fruits, and vegetables. In addition, weekly market reports were prepared for poultry, eggs, butterfat, feed grain, wheat, and peanuts. These reports are based on price quotations obtained from representative buyers throughout the State. Dissemination of this information was expedited by the use of free radio and television public service time. This market information has been widely disseminated in 35 daily newspapers with a circulation of about 1 million copies, and also is used in preparing the market summaries for Sunday newspaper and national weekly publications.

OREGON

Improving quality (meat and meat products)--(RM:c-2550-66)

This project was started during the year to provide basic information for the consideration of the 1957 Oregon legislature in determining the necessity for and costs of a compulsory State meat inspection program for plants not under Federal inspection. Visits were made to 116 slaughter plants in the State to observe sanitation, slaughtering practices, and meat processing methods. Retailers also were contacted to ascertain what problems they encounter in handling uninspected meats as contrasted with inspected meats. At the end of the year, these surveys were about half completed. However, a preliminary report is being prepared for submission to the 1957 legislature.

(Oregon)

Maintaining the quality of filberts in storage--(RM:c-2550-73)

Storage of filberts is desirable to help to even out market supplies from year to year. However, deterioration of filberts in storage, which is of frequent occurrence, reduces quality and adversely affects market acceptance.

Work on this project began about July 1, 1956, and efforts so far have been devoted to planning for facilities, materials, and equipment for storage studies, and to conferences with industry members about conduct of the project. As improved methods of maintaining the quality of filberts are developed, specialists will assist shellers and packers in adopting them. Cooperating in this work with the Oregon Department of Agriculture are Oregon State College and the Oregon Filbert Commission.

Improving grading and handling (potatoes)--(RM:c-2550-74)

This project is designed to bring about the adoption of practices by growers, warehousemen, dealers, and processors which will improve the marketability of potatoes. The work was begun July 1, 1956, as a joint project by the Oregon Department of Agriculture and the agricultural experiment station.

Improving quality and handling (seed)--(RM:c-2550-75)

The objective of this project is to encourage adoption of the best available seed processing and storage practices, in order to market seed with its viability and quality properly protected during storage. This work was begun July 1, 1956, as a joint project by the department and the experiment station.

Improving crop forecasts and estimates (filberts)--(RM:c-4550-41)

An accurate forecast of the tonnage of filberts moving to shellers and packers is needed about August 1 each year by the filbert industry in pricing and merchandising the crop and by the Filbert Control Board in recommending marketing controls under the Federal marketing agreement and order. To improve the forecasting method used, an objective method of sampling, employing a counting of nuts on selected trees in designated orchards during July, is being tested. This was the second year of the tests. The project also includes a study of the growth and development in filbert nuts, to establish methods of forecasting the quality and size composition of the crop as well as the total production.

A preliminary report on the progress in developing objective measurement techniques was released to interested persons. It appears that the work will need to be continued for several years before valid conclusions can be drawn regarding the accuracy and value of the methods tested.

(Oregon)

The Oregon Crop Reporting Service and the Oregon Agricultural Experiment Station are cooperating in the work. Financial assistance is being provided by the Filbert Control Board and the Oregon Filbert Commission.

PENNSYLVANIA

Improving quality (potatoes)--(RM:c-2550-59)

In cooperation with the Extension Service, the Pennsylvania Department of Agriculture continued the program started in 1954 of assisting potato growers and shippers in improving the quality of their packs and the efficiency of their packing operations. Specialists visited storages and packinghouses and made on-the-spot recommendations for improvements in facilities and in methods of grading and packing. Previous research had revealed some faulty practices in grading, such as overloading of sorting tables and operation of graders at excessive speeds, which specialists assisted operators in overcoming. Specialists also instructed employees at the grading tables on how to grade potatoes to meet official standards.

Since this program started, the major potato shipping organization in the State has adopted the Federal-State inspection program for all of its pack. The work under this project is credited with being the most important step in bringing about this development.

This project was discontinued July 1, 1956.

Expanding market outlets through promotional programs and quality improvement--(RM:c-2550-80)

The objective of this project is to facilitate the marketing of Pennsylvania farm products during times when seasonal surpluses prevail, and to develop a long-term coordinated promotional program for properly packed and graded agricultural products. This work was approved on September 25, 1956.

Providing new basic data and marketing information--(RM:c-4550-59)

The objective of this project is to provide additional marketing information on supplies of farm products, utilization, market movements, and facilities in order to assist producers and marketers in developing sound marketing programs.

Providing basic information through a fruit tree census--(RM:c-4550-60)

This project is designed to obtain additional information on tree numbers for apples, peaches, pears, sweet cherries, sour cherries, and on numbers of vines of grapes by varieties and ages. This work will begin on or about March 1, 1957.

PUERTO RICO

Expanding outlets and improving quality maintenance (fruits and vegetables)--(RM:c-2550-8)

Work was continued toward the improvement of marketing practices to maintain the quality of fruits and vegetables shipped to the United States mainland. The value of this business is 3 to 4 million dollars annually. Excepting pineapples and mangos, these products usually are not properly handled, graded, and packed, and therefore do not reach their destination in satisfactory condition. To correct the situation, a proposed regulation has been drafted on the basis of inspections of weekly shipments of products and on information obtained from shippers and other sources. It provides for establishment of a licensing system for shippers, the use of designated types of containers, and the employment of prescribed packing, labeling, and refrigeration techniques. After discussion and revision, this proposed legislation will be submitted to producers, shippers, and other interested parties for consideration.

Taniers. Tentative grade standards for taniers were developed during the year, and also will be submitted to all interested parties for consideration. Although taniers are produced mainly for local consumption, a relatively large volume is shipped to the United States for consumption by the Latin American population. Difficulty was encountered in determining the minimum and maximum sizes to be required in these standards, because of the many varieties and variations in sizes.

Sweet potatoes. Because a quarantine regulation restricted the shipment of sweet potatoes to the United States to those fumigated with methyl bromide, which apparently was injurious to the tubers, shipments no longer were being made. During the year the regulation was amended to abolish this restriction. The amended requirement states that sweet potatoes for shipment must be grown under an insect-control plan approved by the U. S. Department of Agriculture. To improve the quality of sweet potatoes reaching United States markets, tests under controlled conditions were made of various harvesting, packing, and handling methods, and an experimental shipment was made to New York City. This shipment consisted of some sweet potatoes that were washed only, and some that were washed and waxed. Only part of the lot was shipped under refrigeration. A marketing specialist accompanying the shipment made daily inspections. These tests showed the need for additional improvement in handling practices, for educational campaigns among growers, and for better curing techniques.

Pineapples. A survey was made during the year to determine whether or not additional regulations on the shipping of fresh pineapples were needed to insure a higher quality product on the market. In 1955, Puerto Rico produced 29,000 tons of pineapples on 2,600 acres. It supplied about 20 percent of the fresh pineapples sold in the United States, and could supply profitably far greater amounts. The study showed no immediate need for further regulations, but it was concluded that the cooperation of the shippers should be requested to maintain the good quality of shipments.

(Puerto Rico)

Coffee. To provide a larger market for coffee produced in Puerto Rico, the Economic Stabilization Administration started the practice of buying coffee in the parchment directly from farmers. At the request of ESA, the department prepared general specifications, covering such characteristics as moisture content, uniformity and color of the bean, absence of extraneous material, and freedom from damage. Based on these specifications, marketing specialists from the department inspected and graded about 150 lots of coffee, comprising around 2½ million pounds. This program helped considerably in the marketing of locally grown coffee.

General. The program begun the previous year for assisting wholesalers and retailers of fruits and vegetables in improving their handling and merchandising methods was continued. A great deal of guidance was given to producers in the use of modern methods for cleaning, grading, and packing such commodities as tomatoes, cabbage, peppers, taniers, plantains, sweet potatoes, oranges, and grapefruit. In the last year, production of tomatoes has increased 10 percent, and all are taken by the local markets. In the retailing field, 12 stores were assisted in setting up produce departments, which brought about a 10-percent increase in sales of fresh produce. Specialists from the department spent 6 weeks in each store training employees in better buying practices, inspection, pricing and displaying produce, and keeping records of all activities; and they assisted store owners in various improvement programs such as refrigerated and dry displays, cooling rooms, ventilated storage rooms, and facilities for prepackaging.

Improving the quality of processed products by use of quality standards and regulations--(RM:c-2550-69)

This project was started in April 1956 to develop regulations and standards for processed agricultural products as a means of improving and maintaining quality and uniformity. Attention was given during the year to gandules, guava nectar, and guava paste.

Gandures. Gandures, a tropical substitute for dry beans, are a main source of income to farmers in certain regions of Puerto Rico. Since the production far exceeds the demand of the fresh market, a large volume is diverted to canneries. Recognizing the growing importance and potentials of this crop, the department developed a regulation covering such items as types of cans to be used, drained weights for the different types of cans, labeling, and presence of extraneous material. As a result, the quality of canned gandules has been improved greatly. The next step was to develop practical grade standards for this product. By the close of the year, 125 samples had been collected and analyzed, and information was recorded on such aspects as drained weight, viscosity and color of packing medium, color and maturity of the peas, and defects.

Guava. The guava, a tropical fruit, is used for making several canned preparations, among them nectar and paste. The demand for nectar is hindered

both locally and in the United States by the varied appearance and quality of different lots and even differences within lots. Research conducted by the Puerto Rico Agricultural Experiment Station resulted in the development of new processing and canning techniques. One of the latest technical improvements is a method of preventing the grittiness causes by stone cells. The development of quality standards for this product was a major undertaking because of the large number of varieties, the different processing techniques followed, and the wide variation in consumer acceptance. A consumer preference study, in cooperation with the Puerto Rico Agricultural Experiment Station, the Puerto Rico Land Authority, and private business firms, was conducted at a State fair and in a local supermarket. About 2,000 persons who were interviewed tasted paired samples of 66 combinations with varying amounts of acid, sugar, and pulp. In addition, 50 samples were analyzed in the laboratory for color, taste, acidity, and sediment content. The data will be analyzed, and the results will be used in the preparation of quality standards and in making recommendations to processors. Steps are being taken to manufacture a device designed by the experiment station to measure the viscosity of the nectar, which heretofore has been a major problem in this study.

Work on the development of standards for guava paste was limited to several attempts to find or design a device for determining the consistency of the product.

Preparation of tentative regulations covering operations in processing plants is under way to maintain sanitary conditions through proper facilities and equipment.

Improving marketing facilities--(RM:c-3550-4)

During the year, the collection of information on number, location, condition, and operation of marketing facilities at various distribution levels was completed, and the information was tabulated and summarized. The data will be analyzed in the coming year, and recommendations will be prepared for improvements in existing facilities and for types of new facilities that are needed in certain areas.

SOUTH CAROLINA

Improving and expanding market information--(RM:c-4550-4)

The chief activities involved in the continuation of this project included:

1. Expansion of the collection, compilation, and publication of weekly estimates of eggs set and chicks and poults placed. Demand for this information has grown rapidly in recent years, and has necessitated greater attention to this phase of the work.

(South Carolina)

2. Issuance of a monthly bulletin bringing together in convenient form current crop and livestock information.

3. Preparation and publication of a comprehensive bulletin on prices received by farmers and the Price Index for South Carolina.

4. Preparation and issuance of special reports on the 1956 pecan crop, monthly livestock slaughter, honey production, calf crop, lamb crop, chickens raised, wool production, hybrid corn acreage, and wheat varieties.

5. Preparation of county estimates of livestock numbers.

6. Increased coverage of commercial vegetable forecasts and final estimates through inclusion of broccoli, sweet corn, and spinach in the list of crops for which such information is made available.

7. Compilation of data for revising and bringing up to date earlier publications such as South Carolina General Crop Statistics, Planting and Harvesting Dates of Vegetable Crops, Composition of Farm Income in South Carolina, and Estimates of Crimson Clover and Tall Fescue Seed.

SOUTH DAKOTA

Providing experimental market news and new basic data--(RM:c-4550-25)

Hogs. The quarterly pig surveys were continued, and reports issued as of March 1 and September 1 to supplement the regular reports of June 1 and December 1. These reports are designed to assist the 38,000 South Dakota hog producers in achieving more timely and even marketing of the approximately 2,000,000 hogs they market each year. There are 6 major hog packing plants, 130 small plants, and 60 livestock auctions involved in marketing South Dakota hogs. A more even marketing of hogs not only would prevent the low prices that go with market gluts, but also would smooth out the labor requirements of the marketing facilities and processing plants.

Grain. A grain storage capacity survey was made for corn and small grains, and a report published by counties and crop reporting districts, entitled "South Dakota Agriculture 1955." This publication was distributed to more than 5,000 farmers and individuals concerned with marketing these grain crops. The data were obtained with the cooperation of assessors, the State Public Utilities Commission, private mill and elevator operators, and the State Agricultural Stabilization and Conservation Committee.

Poultry and eggs. An egg and chicken survey was made in the winter of 1956 to show changes in marketing methods that had taken place during the past 6 years. The results of this survey are being processed for publication.

(South Dakota)

Barley. A survey of plantings of barley in 1956 by varieties was made, similar to a survey made in 1952. A report is being prepared to show the changes in plantings of barley by varieties and by local areas over the past 4 years. This survey was requested and partly financed by the Mid-West Barley Improvement Association.

General. The program of gathering data on times of planting and harvesting various crops was continued, looking toward the publication of a bulletin on planting and harvesting patterns of South Dakota crops.

TENNESSEE

Improving marketing methods and expanding outlets (poultry and eggs)--(RM:c-2550-29)

Demonstrations of proper candling, grading, packing, and merchandising methods for eggs were given to about 300 producers, wholesalers, packers, and retailers at 13 marketing meetings held throughout the State. A supplemental part of this program was the individual assistance provided producers and egg handlers requesting help on egg grading and other egg marketing problems. Producers selling eggs on a graded basis received from 5 to 20 cents more a dozen than those selling ungraded eggs. Continuation of the egg grading program is essential, as the bulk of the eggs from small flocks in Tennessee are sold to breakers at a price substantially below the prices received for eggs sold to the retail trade on a graded basis. It is estimated that producers can obtain an additional income of $2 per hen annually by selling eggs on a graded basis through retail outlets.

Specialists also worked with poultry processing plants on problems concerning efficiency of operations and sanitation.

Improving methods of marketing (livestock)--(RM:c-2550-30)

Assistance was provided by marketing specialists in conducting 11 feeder calf sales at local market points throughout the State. These sales are reported to have increased producer returns by about $32,000 on the 4,785 head sold. This is equivalent to a premium of 1½ cents a pound over calves of the same quality sold at regular sales. These sales were utilized as demonstrations to show producers how to grade, sort, and pool their calves in order to obtain the best possible prices. Assistance also was provided in holding a special slaughter cattle sale at the Nashville Union Stockyards. At this sale, 438 head of cattle grouped on the basis of quality and size were sold in grades ranging from commercial to choice at prices satisfactory to producers.

A program was initiated to demonstrate the grading of lambs at the 12 lamb pools operating throughout the State. This service was provided to bring about uniformity and consistency in grading results. About 25,000 lambs were graded in these demonstrations, and they sold at about 1 cent a pound more than the prices received for lambs at the auction markets.

(Tennessee)

The program of assisting in the organization of wool pools was continued, about 230,000 pounds of graded wool being sold through 18 pools. The pool sales returned to producers 3 to 4 cents a pound more than was paid by wool buying companies at country points.

Providing special marketing information--(RM:c-4550-20)

Information on market conditions and prices for live broilers, eggs, fowl, roosters, and turkeys was prepared for daily release to radio stations and in reports mailed to about 300 persons in Tennessee and adjoining States. Broiler and egg quotations from local markets within the State and for all the Southeastern States are included in this report. This service informs the producer on prevailing prices and helps him to locate suitable market outlets.

TEXAS

Expanding outlets and improving grading, handling, and quality--(RM:c-2550-65)

Sweet potatoes. Specialists of the Texas Department of Agriculture assisted in the movement of approximately 1,600,000 bushels of sweet potatoes on a graded basis. In cooperation with the Extension Service and the Farm Bureau, grading procedures and requirements and advantages of selling sweet potatoes on a graded basis were demonstrated and explained at 48 meetings in 32 east High Plains and south Texas counties. Including the demonstrational phases, over 2,000 personal contacts were made at the grower level to improve handling practices and marketing methods. Specialists also contacted every major grocery chain within the State and buyers at terminal markets to encourage the sale of graded sweet potatoes. As a result of these contacts, many chainstore buyers at Lubbock, Houston, and San Antonio, who had previously ordered most of their supplies from out of the State, began to buy Texas sweet potatoes by grade at terminal markets. A series of articles prepared to promote the sale of graded Texas sweet potatoes was published in 324 weekly and 36 daily papers. This information was also presented on television programs in Dallas, Fort Worth, Houston, and San Antonio.

This program is coordinated with the administration of the new Texas law which requires all sweet potatoes entering into commercial channels to be graded.

As a service to growers in obtaining good seed stock, a list of 154 producers of certified seed was published by the Texas department and distributed throughout the growing area. In addition, information was furnished to about 1,700 buyers concerning the location of areas of production, expected production, anticipated harvest period, and persons having sweet potatoes for sale. As a result of this program, the sweet potato industry estimates that about $400,000 was added to the value of the crop marketed.

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(Texas)

Watermelons. In order to provide assistance in the marketing of a large watermelon crop, estimated at nearly 18,000,000 melons, a pamphlet, including a map of truck routes in the 18 watermelon producing counties, was prepared for distribution to buyers at major sales points. This pamphlet indicated the variety, expected production, location of shippers and shipping points, and times of harvest. In addition, price and shipping information was released to newspapers and radio stations on a tri-weekly basis. The department received a number of congratulatory letters from the trade urging that the watermelon program be continued next year, and also offers of financial assistance by the industry for this project.

Pecans. Weekly marketing releases were provided buyers on the location, variety, and condition of pecans, to enable buyers to locate good-quality pecans.

Grain. In the fall of 1955, grain producers and handlers were provided emergency assistance in locating boxcars and storage facilities. As a result of this program, the surplus grain, estimated at over 1,000 carlots, was moved off the ground in less than 7 days, and damage to the crop was avoided.

Expanding outlets and improving grading, handling, and quality (poultry and eggs)--(RM:c-2550-70)

Specialists participated in a series of meetings, held in 9 counties in cooperation with farm organizations and the Extension Service, to explain the purpose and need for a Texas egg grading law and to discuss proper labeling and grading. A proposed egg law was drafted for submission to the next session of the legislature.

The department cooperated in a turkey census to obtain information necessary in the planning of an orderly and sound marketing program. Daily market price and supply information on poultry and turkeys was released to all wire services.

VERMONT

Improving quality (milk)--(RM:c-2550-71)

The objective of this program, started in June 1956, is to increase the use of fluid milk by making it a more desirable beverage through improved flavor. To determine the extent and cause of off-flavor in milk from Vermont farms, arrangements have been made for testing for flavor the milk delivered to 79 of the 83 shipping plants, which handle three-fourths of the milk going through such plants, and for taking corrective action on any samples that do not meet flavor requirements. The department worked with technicians in the laboratories testing for flavor, guiding and instructing them. Under a rotating system, it tested individual producer samples of each retailer every

6 to 8 weeks, sent reports to dealers urging corrective measures where necessary, and did further follow-up work with those dealers who were slow to comply.

Only two-thirds of the milk produced in Vermont is sold for fluid use. Therefore, any increase in fluid milk consumption will expand the outlet for this product and thereby increase the net income to producers. Since the program is relatively new, it is difficult to determine what portion of recent increases in fluid milk sales may be attributed to this work. However, since the inauguration of this program, observations indicate that producers and retailers have become keenly aware of the importance of keeping the flavor of milk above reproach.

VIRGINIA

Improving marketing methods (poultry and eggs)--(RM:c-2550-4)

Work to improve egg quality was conducted in the Shenandoah Valley area, Culpeper County in the Piedmont area, and southwestern Virginia. Producers were given instruction in methods of grading and caring for eggs through individual contacts and at demonstration meetings. As an example of results, records of one large egg buyer indicate an increase of 18 percent in Grade A egg deliveries made in April, May, and June 1956, in comparison with the same period in the preceding 5 years. Increased returns to producers amounted to about 10 cents a dozen on these Grade A deliveries, and represented an increase in returns to producers of approximately $23,000 for the period. Assistance also was provided to egg handlers in improving their egg grading and packaging methods.

Work was continued on promoting the use of the sample grade-out method. This sampling procedure reduces labor and record-keeping requirements and makes it practical for a small producer to sell his eggs on a graded basis. The sample grade-out method is to be adopted as an official method in connection with the Federal-State egg grading program in Virginia.

Improving methods and facilities for handling and storing (grain and hay)--(RM:c-2550-5)

The program to develop grain marketing centers was continued. Various marketing services are provided through these centers, such as the dissemination of price information to producers and dealers, technical assistance to elevator operators on equipment arrangement and operation, training in grain grading methods, and development of programs to encourage the buying and selling of grain on the basis of official grades. There are now 16 such centers in Virginia as compared to only 3 in 1948.

(Virginia)

Specialists also provided demonstrations for producers at the point of sale on quality factors affecting grain grades. This program helped to obtain the adoption of official grades as a basis for establishing premiums and discounts in the buying and selling of grain, to replace the practice of taking hidden discounts through weight deductions. The improvements in marketing practices since the inception of the program in 1948 have resulted in an addition to farm income from soybeans of more than a million dollars.

Assistance again was provided grain handlers and elevator operators in bringing about greater use of up-to-date grain handling equipment, in improving equipment arrangement and operation, and in the development of more adequate storage facilities. Specialists also worked on plans for the expansion of commercial storage, additional farm storage, and better methods of transportation. This work has helped to reduce loading time for corn, wheat, and other grains at harvest time, as well as in bringing about a 75-percent reduction in the amount of "sick" wheat due to improper operation of elevators. Furthermore, it has assisted in preventing losses from price discounts on corn, resulting in increased returns to producers during the year estimated at over $50,000. Since the start of the technical assistance program for grain, commercial grain storage with a capacity of over 1½ million bushels has been constructed in Virginia.

Providing special market information--(RM:c-2550-6)

Marketing agents prepared information for the Weekly Price Outlook report, which is furnished to a mailing list of about 500 persons. This report discusses the prospective price situation for farm commodities for the following week. The contents of the report are based on an evaluation of the marketing situation by Virginia Department of Agriculture statisticians, marketing agents, heads of commodity marketing sections, and market news personnel. The marketing situation information also is made available for newspaper, radio, and television releases throughout the State.

Special promotion campaigns were conducted, in cooperation with industry groups, on beef, pork, peaches, apples, vegetables, poultry, and eggs, to expedite the marketing of these products during periods of plentiful supplies and depressed prices.

Improving grading and marketing methods (livestock)--(RM:c-2550-7)

Demonstrations of official live-hog and carcass grades were conducted on the Richmond livestock market in connection with the program to encourage the buying and selling of hogs by grades. As a result of this program, one large packer in the Richmond market that now is buying on a grade basis experienced a tremendous increase in volume, and was paying producers at least 25 cents a hundredweight over the average price paid for all hogs sold on this market.

(Virginia)

Specialists assisted in organizing and conducting stocker ewe sales at Tazewell and Dublin. Before these sales, specialists sorted the animals by age, health, and quality. The sales were preceded by an intensive promotional effort which included 32 radio announcements, a 15-minute television show, and coverage in daily newspapers and the Farm Bureau News. At these sales, 1,248 graded stocker ewes were sold for $31,097.25, or $2,496 more than the prevailing farm prices.

Grading demonstrations and assistance provided in organizing and conducting 20 special livestock sales resulted in increased returns to producers of $7 to $10 a head on the approximately 15,000 feeder cattle sold.

Work was continued on the livestock auction report which makes available reliable and comprehensive price information on livestock sold through local auctions. About 75 percent of the livestock sold in Virginia moves through these outlets.

Improving marketing practices (fruits and vegetables)--(RM:c-2550-44)

Strawberries. Specialists demonstrated the possibilities of improving the quality of the Virginia strawberry pack and expanding outlets by marketing the berries in plastic pints, packed 12 to a master container. The container was similar to one which has been used extensively in California the last few seasons. On the basis of observations by specialists of test shipments in terminal markets, it was demonstrated that berries packed in this container suffer much less bruise damage than those packed in the conventional crate, make a more attractive display in retail stores, and sell at a premium in wholesale markets.

Apples. The Virginia department has developed a comprehensive program of assistance to the apple industry of the State in improving the quality of the pack and expanding outlets. The practice of storing apples in field crates and packing them as they go out of storage is being encouraged, since this method results in less decay and fewer condition defects in the pack moving to market than occurred when the apples were packed as they moved into storage. Under this program, apple packers can form "apple rings" and, as members of these organizations, receive assistance from marketing specialists in improving the grade and pack of fruit and in securing new outlets. The department gave advice and assistance to the Virginia Apple Commission in conducting its promotional program. Through these efforts, free and tie-in promotion amounting to about $50,000 was secured to supplement the promotion budget of the Commission. To implement its apple marketing program, the department has developed a State label of quality which packers may use on packs meeting specific quality requirements as determined by Federal-State inspection.

Sweet potatoes. Assistance was provided in organizing a bargaining cooperative in Northhampton County to negotiate prices for sweet potatoes sold to canneries. After the cooperative was in operation, further assistance

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was provided in establishing market grades and quality control for the finished product. During the last marketing season, the Northhampton cooperative sold about 5,000 bushels of sweet potatoes to canneries at a premium of 10 cents a bushel.

A sweet potato improvement committee was organized in Northhampton County, with the assistance of the county agent. This committee is composed of producers, packers, and handlers who are working together on problems of seed stock, harvest handling practices, selling methods, packing, grading, and product promotion.

Strawberries, green tomatoes, and sweet potatoes. Specialists, assisted by the county agent, organized a marketing cooperative in Accomack County. Demonstrations were given to members of this cooperative on proper grading and packaging methods for strawberries, green tomatoes, and sweet potatoes.

Green tomatoes. The department assisted in organizing a green-tomato marketing cooperative in Lancaster. Additional assistance was furnished this organization in planning facilities and in adopting proper grading and packing methods.

Vegetables. About 375 producers were affected by the marketing service program for vegetables. It is estimated that this work augmented producer income by over $32,000 in 3 major areas of the State.

Improving grading, handling, and processing methods (tomatoes)--(RM:c-3550-15)

The program to improve the quality of canned tomatoes and the efficiency of processing plants was continued. The tomato canning industry, composed of many small plants operating on a part-time basis, was slow to diversify its operations or modernize its facilities, and offered little incentive to farmers to field grade or deliver a product of uniform quality. A survey made in previous years showed that 30 percent of the canned tomatoes from eastern Virginia were below the usual quality standards and were subject to seizure by the Federal Food and Drug Administration when shipped out of the State.

A four-point program of work was developed to: (1) Improve canning facilities, (2) adopt a stricter sanitary code, (3) obtain higher quality in the canned product, and (4) promote greater diversification. During the year assistance was given on design and layout of one new plant, and estimated savings of $2,500 were effected during the first year of operation. Two plants were consolidated into one improved operation at a saving of $1,500, without loss in total volume. Four canners started a system of feeding pulp material to cattle, a program which offers promising results. Four canners adopted the quality label of Virginia as an aid to merchandising and supplying a product of uniform quality. Other improvements noted during the year included the provision of better facilities for employees and the adoption of two daily clean-up periods instead of one.

(Virginia)

Many improvements have been made since this program was begun. Consolidation within the industry and economic pressures on individual canners have reduced the total number of plants from 73 to 52 without materially affecting the market outlets. More than $165,000 has been spent by individual canners for continuous cookers. Over 5,000 square feet of additional storage facilities have been built adjacent to plants. The exhaust principle, to provide vacuum pressure as an aid in increasing storage life, has been adopted by each plant. To increase labor efficiency, 10 plants have added conveyor equipment, and hand labeling has been reduced to 20 percent.

In 1951 only 5 percent of the canneries were screened against flies as compared to 80 percent in 1956. Each plant is provided with a stainless steel inspection table, whereas in 1951 less than 40 percent possessed them. Waste disposal methods have been improved considerably.

The proportion of canned tomatoes grading substandard has been reduced 60 percent. The latest figures on product quality indicate that 8 percent of the pack graded "B," and 82 percent "C." Many individual canners have set goals to produce top grade "C" tomatoes, and 10 have adopted a program of buying ripe tomatoes on grade.

Facilities at 3 plants have been remodeled to make possible the canning of sweet potatoes, black-eyed peas, string beans, and lima beans as well as tomatoes.

Improving marketing facilities and handling methods--(RM:c-3550-33)

Apples. The State department added an engineer to its staff to provide advisory assistance to fruit producers and packers. This specialist surveyed packing operations in 7 apple houses and made recommendations for improvements in equipment which would reduce costs and improve labor efficiency. One packer was able to save $25 a day on labor expenses by adopting one of the suggested improvements in equipment layout.

General. Technical assistance again was provided in planning new or improved wholesale market facilities for several cities in the State. For example, specialists participated in conferences with representatives of the Agricultural Marketing Service and industry concerning the establishment of a new market center at Roanoke, which would include new facilities for handling fruits and vegetables.

WASHINGTON

Improving marketing methods and expanding outlets--(RM:c-2550-39)

Potatoes. In cooperation with the Washington State Potato and Onion Shippers Association, the Washington Department of Agriculture assisted potato growers and packers in the Columbia Basin area in improving harvesting and

(Washington)

handling practices so as to reduce stem-end discoloration in potatoes. Factors other than improper harvesting methods and rough handling practices influence the development of this condition. However, the evidence indicates that the latter factors contribute significantly to the problem. Much was accomplished under this project to reduce the damage. A great deal remains to be accomplished in this field, and the work so far indicates that marketing service specialists need more research findings concerning the causes of stem-end discoloration.

Milk. Efforts to promote increased milk consumption through the installation of vending machines in office buildings, industrial plants, and the like were concentrated during the year in eastern Washington. Under the stimulus of this program several hundred machines were installed, mostly in the Spokane area. Vending machine sales in the State have increased 10-fold since 1954 and are now estimated at 10,000,000 half-pint units a year. These sales represent to a large extent additional consumption which would not otherwise be obtained.

Providing special market information and basic data--(RM:c-4550-55)

Agricultural data on a county-by-county basis is needed by various commodity groups and private and governmental agencies in planning and conducting programs relating to marketing. This need has become particularly acute since passage of the Agricultural Enabling Act by the 1955 legislature. This legislation permits producers to organize themselves into commodity groups to promote better marketing of their products. County data are of much value to these groups in organizing and operating under this statute. During the year, such data were assembled and published for Skaget, Yakima, and Lewis Counties. Bulletins for the other 36 counties of the State are in various stages of preparation.

At the request of cranberry growers, the department conducted a field survey to obtain basic data on the status of the cranberry industry in Washington's producing districts in Pacific and Grays Harbor Counties. Information obtained in this survey related to such items as bearing and non bearing acreage, intended plantings, condition of bogs, and harvesting methods and equipment. The field work has been completed, and statistical analysis of the data is under way.

WEST VIRGINIA

Improving grading, handling, and marketing--(RM:c-2550-56)

Fruits. Apple growers in West Virginia were confronted with a serious price situation as the 1955 harvest season got under way. Extremely low prices were being offered them, even though production in the State and in the Appalachian apple belt was substantially below that of the preceding year. Canners, whose buying operations have a substantial effect upon the general

level of apple prices, opened the 1955 season with a large carryover of applesauce and, as a consequence, started off the season by offering only 80 cents per bushel. The situation called for an aggressive program to induce out-of-State fresh fruit buyers to enter the local market and move into consumption the supplies in excess of processing and storage needs.

To stimulate apple sales to fresh fruit outlets and to improve grower prices, the West Virginia Department of Agriculture, in cooperation with the West Virginia Horticultural Society, started a clearing-house service through which truckers and other buyers were kept informed on a day-by-day basis of the availability and prices of apples in the State.

Growers having fruit for sale supplied the department daily with figures on quantities, varieties, grades, sizes, and asking prices. The department, in turn, passed on this information to truckers at the information center established for this purpose. Mailed bulletins and announcements in the trade papers were used to inform other buyers of the locations of supplies and price conditions. A total of 374 truckers and other buyers used the information center to locate supplies. This substantially reduced the time and travel necessary for their buying operations, speeded up the movement to market, and reduced marketing costs.

Both growers and truckers praised the program. Growers who actively participated received an estimated $300,000 to $375,000 additional income on the estimated 750,000 bushels moved through the program. By stimulating competition, the program improved the level of apple prices generally in the State and thus spread the benefits to other growers, raising the average price received for the total apple crop of about 4.3 million bushels by at least 30 cents a bushel. This clearing-house service was reactivated and placed in operation to assist in marketing the 1956 peach and apple crops.

Poultry and eggs. As a result of the marketing assistance given the broiler industry by the West Virginia Department of Agriculture, broiler growers of that State received additional returns last year estimated at about $475,000 on the 22 million birds marketed. This increased income, which is equivalent to nearly three-quarters of a cent a pound, was achieved by furnishing to growers information on current factors in the broiler marketing situation and providing buyers over the West Virginia market territory with information on individual flocks, including location, number, age, weight, quality of birds in lots to be offered for sale, and the times when they would be available. This buyer informational program, in conjunction with the auction method of selling sponsored by the West Virginia department, reduced costs for both the producer and buyer, and improved outlets. The department also continued its assistance to the farmers' markets in the State in improving marketing practices and outlets for eggs. Producers selling their eggs through these markets to retailers and other buyers requiring eggs of good quality are reported to have received about 3.5 cents a dozen above wholesale price quotations at nearby terminal markets.

(West Virginia)

Fruits and vegetables. Before the 1956 fruit and vegetable marketing season, the West Virginia department conducted a training school for managers of the farmers' markets in the State in methods of improving the grading and marketing of these commodities at these markets. During the marketing season, specialists of that department and the market managers conducted demonstrations of proper grading and packing methods, to assist the 4,000 growers using these markets in offering to the trade products of more uniform and higher quality. Specialists also aided vegetable growers in specialized producing areas in grading and packing such commodities as green wrap tomatoes, cauliflower, broccoli, cabbage, and head lettuce to meet the requirements of the U. S. No. 1 grade.

Livestock. The department continued its program of conducting demonstrational feeder calf and cattle sales. At such sales, livestock producers find improved outlets for their livestock, and learn proper methods of preparing animals for sale and of sorting and grading them to realize maximum returns. About 20,000 cattle were sold through these demonstrational sales during the year, and it is estimated that the producers realized an average of $8 more a head than they would have received through conventional sales outlets.

Tobacco. Assistance to tobacco growers in improving methods of harvesting, storing, curing, stripping, and grading tobacco also was continued.

Providing new basic data and experimental market news--(RM:c-4550-40)

Information on poultry and dairy production trends, prices, storage holdings, and cost of feeds was assembled and released monthly by the department to poultrymen and dairymen over the State. Data on the number of chickens and turkeys tested by State agencies for pullorum were included in the poultry review, to give producers, hatcherymen, and others an indication of the probable supply of hatching eggs. Copies of these reviews were mailed to interested persons, and information from them was used extensively by newspapers in preparing articles on the poultry and dairy industries.

The market news program was expanded during the year to include more commodities and provide greater coverage. For the first time, price quotations for broilers and turkeys from the weekly auction markets were included in the broiler and turkey daily price reports. Information from these auctions made possible the reporting of egg, poultry, and vegetable prices by grades.

County data for crops and livestock were published in the bulletin "Agricultural Statistics," in response to many requests for this type of information. Numerous requests had been made for county estimates of egg production. In response to this need, such estimates were made for the first time and are to be included in the forthcoming issue of "Agricultural Statistics."

(West Virginia)

Preliminary plans were developed during the year for establishing a price reporting service covering the livestock auction markets of the State. Problems are still to be solved to insure that the data will be comparable from market to market and the price quotations authentic.

WISCONSIN

Improving marketing practices, expanding outlets, and conducting experimental market news--(RM:c-2550-9)

Dairy products. Activities designed to expand outlets for dairy products were stepped up during the year. In promoting cheese, major emphasis was placed on Cheese Week campaigns in out-of-State markets. During the year, such campaigns were conducted in 21 cities, compared to 10 during the preceding year. In these campaigns, the Wisconsin Department of Agriculture assists wholesalers and retailers in planning and conducting publicity programs and in arranging and servicing store displays, trains demonstrators for in-store promotion, and stages demonstrations of the uses of different kinds of cheese in meal planning, before high school and college home economics classes, women's clubs, food editors, and television audiences.

These campaigns reached an estimated 3,000,000 families during the year. An increase of about 1,000,000 pounds in cheese sales is reported for the 21 cities during the week of the campaign. This gain was an increase of about 50 percent over sales in the week preceding the campaign. Carryover effects of the campaigns resulted in above-normal cheese sales in these markets throughout the rest of the year. For example, during the 4 weeks immediately following the campaigns, sales averaged 25 percent greater than normal for the period.

Programs to promote greater use of nonfat dry milk were conducted in two cities as an adjunct to the Cheese Week promotions. These programs are credited with boosting sales of the product by as much as 250 percent during the promotion period, and maintaining later sales at a level about 60 to 75 percent above the corresponding periods of the preceding year.

Intensive promotional activities, including June Dairy Month and the October Cheese Festival, also were carried on within the State in cooperation with the American Dairy Association of Wisconsin, the Extension Service, and producer and industry groups. Reports from dairy plants, retailers, and restaurants indicate that the June Dairy Month campaign alone increased sales of milk and dairy products by 14,000,000 pounds of milk equivalent. Reports from retail grocers in the State revealed sales gains in June 1956 over June 1955 of 12.5 percent for milk, 5.8 percent for butter, 14.6 percent for cheese, 23.7 percent for ice cream, and 11.8 percent for cottage cheese.

Poultry and eggs. In cooperation with the Wisconsin Poultry Improvement Association, the Wisconsin Turkey Federation, and the Extension Service, the

(Wisconsin)

Wisconsin Department of Agriculture provided merchandising assistance to wholesalers and retailers in 7 campaigns promoting eggs, broilers, and turkeys. In these campaigns, specialists made personal contact with representatives of 25 wholesalers and 14 retail organizations and assisted them in planning their promotional activities and coordinating these with the overall effort to stimulate consumption of the particular item. These specialists also worked with the Wisconsin Restaurant Association and the Wisconsin Department of Public Instruction to encourage greater use of eggs and poultry in restaurants and schools. These campaigns were backed up by intensive efforts to induce consumers to buy more of the commodities. News releases, feature stories, and radio and television programs gave information about eggs and poultry, and how these products could be used effectively in planning meals and food budgets.

Price reporting of the live broiler market was expanded to include Thursday as well as Monday of each week. Price information was obtained from 12 cooperating dressing plants, summarized, broadcast over a State radio network at 9:40 a.m. on these days, and also printed in the Federal-State Market News Report.

Meat. Similar campaigns were conducted by the department during the year, in cooperation with industry organizations and other State agencies, to promote pork and beef consumption. Point-of-sale kits were provided to over 5,000 of Wisconsin's retail food outlets. Specialists helped many retailers to make effective use of this material. Programs emphasizing the value of meat in the diet and describing methods of preparation were conducted by specialists, including the State nutritionist, over radio and television stations. There were requests for nearly 9,000 pork recipe booklets which the State nutritionist, who appeared on these programs, had used in her discussion of pork menus.

Tobacco. The department continued its program of providing marketing information to the Wisconsin tobacco industry. Each day during the marketing season, price information was collected and disseminated by press, radio, and television, covering the two types of tobacco grown, Types 54 and 55. Data on prices and sales also were summarized and published weekly and for the season.

Providing technical assistance to marketing agencies in improving operations--(RM:c-3550-11)

Specialists of the Wisconsin department continued to provide assistance to marketing agencies in improving operations. The trend in Wisconsin in the dairy field has been toward large, flexible processing plants equipped to handle both grade A and grade B milk. At the request of the groups concerned, the department provided assistance to several small plants in problems relating to consolidation of the organizations and financing and building of large multiple-product plants. It is reported that these flexible plants are able to make higher payments to milk producers because of their greater efficiency and leadership in improving product quality.

(Wisconsin)

Improving quality (dairy products)--(RM:c-3550-26)

The quality of butter produced in Wisconsin has shown steady improvement since the start of this program in the butter industry 5 years ago. This improvement has been particularly noticeable since the compulsory butter grade-labeling law went into effect in 1953. Based on scorings of butter samples obtained from comparable areas of the State, the percentage of butter produced grading Wisconsin Grade A or AA (scoring 91½ or more) increased from 41 percent in 1951 to nearly 59 percent in 1955. Over this same period the percentage of Wisconsin undergrade (scoring 89 or less) decreased from 37 to 7.1 percent. This improvement in quality resulted in an estimated increase in annual revenue of about $200,000 to the Wisconsin butter industry. Although progress is being made in raising the level of butter quality there is room for considerable improvement as evidenced by the fact that considerable quantities of grade B and undergrade butter are still being produced. Since much of the butter of these lower grades is produced from whey cream, the Wisconsin department is now placing major emphasis on measures to induce cheesemakers to adopt proper methods of handling and cooling this byproduct and to encourage buttermakers to discontinue the use of salt and press-drippings in butter production. The department sponsored a joint meeting of butter manufacturers and cheesemakers, at which methods of improving the quality of whey cream butter were recommended and discussed.

Countywide quality improvement programs for dairy products at both the producer and plant levels have been a feature of this project since its inception. Programs of this type were continued in Wood and Sheboygan Counties and started in Price County during the year. Under these programs, specialists were assigned to each county to assist producers and dairy plants in identifying the causes of quality defects in milk and dairy products and in adopting corrective measures to bring about quality improvement. Specialists assigned to Sheboygan County, where the program has been in effect for 5 years, worked closely with 38 plants in improving plant equipment and sanitation. During the year, these plants completed 65 specific projects which the specialists recommended, based on their plant surveys and quality tests. These projects ranged all the way from the repair of wells to the installation of stainless steel pasteurizers and other equipment used in dairy-product manufacturing. Installation of stainless steel equipment was recommended in many instances to eliminate off-flavors resulting from the use of worn equipment of other materials, for example, copper. The intensity of the effort in this county during the year to bring about improvement in the quality of the milk supply is reflected in the fact that nearly 10,000 individual sediment or bacteriological tests were made to learn the particular producer sources of low-quality milk and in working with producers and plant fieldmen in identifying the specific causes and measuring the progress of corrective measures. The program has resulted in a significant improvement in milk quality in the county. For example, in 1950 the year before the work was started only 15 percent of the milk graded No. 1 based on the sediment test. Last year the percentage of No. 1 milk based on this test reached 34.2 percent. Results of the program in this county in reducing bacteria

count are not conclusive. In 1955, there was a slight decrease in the percentage of No. 1 milk based on the bacteriological test, but this decline was attributed to the exceptionally hot and humid weather which prevailed.

Production and marketing of Grade A milk is becoming increasingly important in Wisconsin. Last year, several Grade A plants encountered difficulty in maintaining the quality of milk required for interstate fluid milk outlets. These 13 plants were shipping annually about 153,000,000 pounds of milk, and failure to meet the required Grade A quality standards would have meant a loss to them and their producers of about 45 cents a hundred pounds. Assistance provided by specialists of the department enabled these plants to overcome their quality problems and to retain the higher price Grade A outlets.

Providing new basic data--(RM:c-4550-5)

Development of sound marketing programs requires basic information relating to annual and seasonal trends in production, utilization, demand, prices, and storage holdings. In this period of rapid and far-reaching economic changes, the Wisconsin Crop and Livestock Reporting Service is attempting, through special surveys, to provide producers and marketing agencies with information needed in making marketing decisions.

Dairy products. At the request of representatives of the dairy industry, a special survey of the production of cheddar cheese by sizes and styles was conducted, and the results were prepared for later publication.

Developments in the dairy industry are having a profound effect upon milk procurement problems of dairy plants. To provide plants with basic facts needed in planning operations and milk hauling routes in view of the changing supply situation, data were compiled and analyzed to reveal the intensity of milk production on a township basis. A report is being prepared from this study which will portray local area variations in the supply of Grade A milk and present data concerning the pricing of milk and its utilization.

The Wisconsin Crop and Livestock Reporting Service also continued to provide the dairy industry with dairy marketing information of current interest, through its monthly publication, Wisconsin Dairying, which has a circulation of about 6,500.

Hogs. The Wisconsin feeder pig industry has undergone rapid growth in recent years, and numerous marketing problems have arisen, creating a need for certain basic data. A study was begun during the year to bring together information on such factors as (1) area of supply, (2) seasonality of supply, (3) lot sizes, (4) current and historical prices, (5) outshipments to other States, (6) methods of sale from farms, (7) location and characteristics of "pig fairs" within the State, and (8) methods of transportation. Data on these aspects of feeder pig marketing have been completed, and a bulletin is

being prepared on the subject. Preliminary data were used by Extension marketing specialists in helping to organize a feeder pig marketing agency. Feeder pig prices are now being estimated and published monthly as a result of this work.

Wisconsin continued the publication of the quarterly pig reports started several years ago, now being released by 9 important hog-producing States.

Honey and beeswax. To supply information on the production and marketing of honey and beeswax in Wisconsin, the Crop and Livestock Reporting Service published in bulletin form the available data on these products.

Cucumbers. Market area data on acreage, yield, production, and related basic marketing information for cucumber pickles were published in Wisconsin Crop and Livestock Reporting Service Special Bulletin No. 60, "Wisconsin Cucumbers, Production and Marketing," February 1956. The industry cooperated in furnishing data for this publication on such subjects as contract acreage, open-market purchases, grade sizes, and varieties.

Peppermint. A similar study was made relating to the Wisconsin peppermint industry, and the results were published in Wisconsin Special Bulletin No. 59, "Wisconsin Peppermint Production and Marketing," April 1956.

Maple products. In response to numerous requests from producers, marketing agencies, and county agents, information was published relating to the gathering of sap, the processing of maple syrup and sugar, recent technical developments relating to these procedures, factors affecting the yield of sap, trends in national production, importation, and consumption of maple syrup, production by counties in Wisconsin, and the marketing program for Wisconsin maple products.

General. Because of the steady and persistent demand for information on production and marketing of farm products by counties, the Wisconsin Crop and Livestock Reporting Service started a series of 71 county agricultural data bulletins, 4 of which were issued during the year. Plans are to issue such bulletins for 20 additional counties each 6 months until the series is complete.

WYOMING

Improving quality (eggs, livestock and meats, and dairy products)--(RM:c-2550-60)

Activities were continued under this project by demonstrating to egg producers, wholesalers, and retailers proper methods of grading, candling, and packaging eggs. Continued assistance was provided commercial slaughtering plants, meat processors, cream stations, and retailers in improving the processing, grading, handling, storing, and displaying of meat and

dairy products. Demonstrations were conducted on proper cleaning procedures and methods of handling milk and cream, on the farm and in processing plants, to insure quality maintenance.

This program has resulted in estimated additional income to producers of more than $40,000. The estimate is based on the decrease in the amount of these products condemned, and on the greater salability of the products.

Supplying basic data (livestock and crops)--(RM:c-4550-38)

Work proceeded on the analysis of cattle movement data for 1953, 1954, and 1955, supplied by the Livestock Sanitary Board from brand certificates. Results of the analysis are being furnished to the AMS Western Livestock Marketing Research Project. The first study of cattle movement data was published under the title "Movement of Wyoming Cattle, 1950-52." As a result of this study, most of the other Western States having brand inspection data have developed similar projects.

Estimates of irrigated and nonirrigated crop acreages and production for 1954 and 1955 have been developed for publication next year.

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Louisiana Annual Milk Marketing Report. State Department of Agriculture and Immigration, Baton Rouge, 1955.

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